Contemporary composition for shakuhachi and western instruments: timbral gesturality in the analysis of cross-cultural music

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Declaration for Ph.D. thesis

I have read and understood regulation 17.9 of the Regulations for students of the SOAS, University of London concerning plagiarism. I undertake that all the material presented for examination is my own work and has not been written for me, in whole or in part, by any other person. I also undertake that any quotation or paraphrase from the published or unpublished work of another person has been duly acknowledged in the work, which I present for examination.

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Abstract

This thesis is about the contemporary combination of the Japanese shakuhachi flute with western art music in the emerging corpus of cross-cultural composition. The research focuses on the composers and their works, their attraction to the distinctive shakuhachi timbre, the musical ways in which they explore this timbre, and their choices of instrumentation. The research also addresses the problem of an analytic paradigm by which we can frame their use of shakuhachi timbre; timbre is notoriously difficult to analyse.

Firstly, the thesis reviews international post-war and contemporary composers, and surveys trends in instrumentation, using new purpose–built databases. Secondly, it examines the East Asian timbral context that informs shakuhachi practice. Thirdly, it proposes a new gestural–musicological analytic paradigm with which to analyse the use shakuhachi timbre in individual cross-cultural works. This paradigm draws on Ben-Tal's (2012:251) and Hatten's (2006:8) definitions of gesture, and the respective proposals by Tsang (2002:35–36) and McAdams et al. (2004:157) of timbral rhythm and timbral trajectory.

Chapter 1 outlines the context and scope of the study, and an overview of shakuhachi literature. It also contains an outline of literature on timbral and gestural research, the proposed methodology by which these are combined, and a review of survey methods in ethnomusicology. In Chapters 2 and 3, I review the international compositional cohort and survey their instrumentation, while Chapter 4 assesses the timbral context of the shakuhachi. In Chapters 5 to 7, I examine three works by contemporary composers using the analytical paradigm proposed. Finally, in Chapter 8, I reflect upon effectiveness of the surveys in previous chapters in assessing the compositional cohort. I also draw together common shakuhachi timbral themes expressed through the subsequent analyses: depth, flexibility, and range, and reflect upon the gestural–musicological analytical model in analysing this complex timbre.

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Contents of the accompanying CDs

Music scores by Marty Regan and Frank Denyer, and corresponding audio tracks, are used with their permission. I endeavoured to contact Jordi Savall, however I was unable to do so, therefore I use two of his audio recordings under the terms of fair dealing as defined under the 1988 Copyright and Patents Act. The following article publications are included in the bibliography.

CD 1 **Music scores, database, and published compilations of shakuhachi compositions**

Track 1 Microsoft Excel 2008 file of shakuhachi compositions and composers' databases "shakuhachi composition database.xlsx". The file contains seven spreadsheets:

1. Instrument trends database
2. Instrumentation database
3. Instrumentation database 2
4. Total frequency
5. Sources (for the databases)
6. Country abbreviations (for the databases)
7. Instrument key and abbreviations (for the databases)

Track 2 Benitez, Joaqim; Matsushita, Hitoshi. 1994. "A survey of contemporary music for shakuhachi by Japanese composers." *Contemporary Music Review* no. 8 (2):239–256

Track 3 Iwamoto, Yoshikazu. 1994. "The Potential of the Shakuhachi in Contemporary music." *Contemporary Music Review* no. 8 (2):5–44

Track 4 Samuelson, R. 1994. "Shakuhachi and the American composer." *Contemporary Music Review* no. 8 (2):89–93

Track 5 Score: Transcription of *O Gloriosa Domina* (Henderson 2013)

Track 6 Gestural overview of *O Gloriosa Domina* (Henderson 2013)

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CD 2 Audio CD: track listing

Track 1 ***Improvisación sobre "O Gloriosa Domina"*** (Improvisation on "O Gloriosa Domina") (2011) performed by Ichiro Seki on shakuhachi. The project was recorded in 2006–2007 and released in 2011 by Alia Vox, the record label established by Jordi Savall and Montserrat Figueras in 1998. (From Alia Vox AVSA 9883 *Hispania & Japan: Dialogues*, track 1, 2011.)

Track 2 ***Improvisación sobre "O Gloriosa Domina"*** (Improvisation on "O Gloriosa Domina") (2011) performed by Ichiro Seki on shakuhachi and Yukio Tanaka on biwa. The project was recorded in 2006–2007 and released in 2011 by Alia Vox, the record label established by Jordi Savall and Montserrat Figueras in 1998. (From Alia Vox AVSA 9883, *Hispania & Japan: Dialogues*, track 7, 2011.)

Track 3 ***The Tender Sadness of Tyrants as they Dance*** (Denyer 1991) for shakuhachi and bass flute, performed by Yoshikazu Iwamoto on shakuhachi and Jos Zwaanenburg on bass flute. (From Etcetera Record Company B.V. KTC 1221, *Finding Refuge in the Remains*, track 7, 1998.)

Track 4 ***Forest Whispers…*** (Regan 2008) for shakuhachi and cello, which was performed by Seizan Sakata on shakuhachi and Asako Hisatake on cello as part of an album of Marty Regan's works.[1] (From Navona Records LLC. NV5931, *Forest Whispers… Selected works for Japanese instruments, Vol. 1*, track 7, 2010.)

[1] http://www.martyregan.com/store/recordings/forest-whispers/ (30 Apr. 15).

Acknowledgements

I would like to thank the many individuals who have made this study possible, in particular Clive Bell, Wasan-sensei, Kiku Day, Marty Regan, Frank Denyer, Prof. Ian Cross, Dr. Henry Stobart and Dr. Nick Gray for their suggestions, insights, tuition and generosity with their time and resources. Finally thanks must also go to my family, especially Chris, for their patience and support.

Stylistic conventions

For the transliteration of Japanese to English, including the names of authors, I have used the internationally recognised Hepburn system (for example Tsukitani), with alternative Kunreishiki transliterations noted where the term or name is also widely known by that system (for example Tukitani). The exception is shakuhachi which is always transliterated using the Hepburn system rather than the Kunreishiki transliteration (syakuhati). In the bibliography, I have followed the conventions of the publication: if the publication and author/editor's names are given in Kunreishiki, then I have followed suit (for example Yosihiko or Yamaguti) and likewise for Hepburn (for example Yoshihiko or Yamaguchi). Where no clear transliteration preference is indicated, I have used Hepburn.

Japanese names are ordered according to the western system of forename surname (for example Tōru Takemitsu) rather than the Japanese system of surname forename (for example Takemitsu Tōru). As there is no accepted standard of hyphenation and word division in Japanese, whatever seemed most expedient for the reader has been done. Well-known place names such as Tokyo and Osaka have been rendered without the macron in line with popular usage.

Japanese terms in running text are italicised except for well-known terms (for example shakuhachi, koto) and some proper nouns, including place names, names of historical periods and names of people or groups. All Japanese musical (and other musical) terms are italicised throughout and are initially defined in the text where necessary; thereafter the reader should refer to the glossary in Appendix 1. In Chapter 4, numbers are generally written numerically rather than alphabetically. Unless given in running text, cross-references are indicated in footnotes by chapter and section reference, for example "See Chapter 4, §4.4.2."

1 Introduction

1.1 How I came to study the shakuhachi

I first came across the shakuhachi whilst doing my MA Ethnomusicology at City University, London. At the time, my focus was on the music of North India, although I had set myself the task of working my way through the ethnomusicology CDs in the library. In this way, I was introduced to the shakuhachi and the sound of this end–blown bamboo flute instantly resonated. I subsequently undertook a subsidiary study on the shakuhachi and sought out opportunities to try the instrument, which I was able to do with the British shakuhachi player Clive Bell.

Several years later, I was able to study the shakuhachi whilst working in Nagoya, Japan. I had started a new job and soon heard about a German colleague employed by my new company who also played the shakuhachi. People told me that I 'must' meet him, and eventually I did, although not in a planned way; we were sitting opposite each other on a train, on our way to or from a contract, and we struck up conversation. It transpired that my German colleague had studied instrument making in London, but had now been living in Japan for some years and studying shakuhachi. He offered to introduce me to his teacher, Wasan-sensei, who lived in Nagoya.

I was very nervous when I met Wasan-sensei; thus far I had been able to produce some tones from the 1.9 shakuhachi[2] that I had bought in a junk shop in Kyoto whilst sheltering from the rain, but in the face of a bona fide teacher, all I could do was squawk. Nevertheless, lessons were arranged and my first lesson took place at his home, interspersed with many tea breaks, in a traditional music room lined with shakuhachi and wooden cabinets. Thereafter I travelled to his teaching studio for weekly lessons on a Wednesday evening, which could last for anything from an hour to an hour forty minutes. I would arrive while a lesson was taking place and repair to a secondary room to warm up.

[2] 1.9 refers to the length of the shakuhachi, and by extension, its base pitch. See §2.1 for more detail.

Despite, or perhaps because of the language barrier (my Japanese was minimal, as was his English), his teaching method was a very effective combination of learning to sight-read the Japanese notation and mimesis of sound and movement, alongside very good management of the pupil's self-esteem. Thus, under his expert tutelage, I made progress in mastering the basic repertoire that he provided and developing confidence in my knowledge. He was not above putting pupils on the spot; I would practice a piece all week and arrive at the lesson, only to have him place a new score in front of me, whereupon he would pick up his flute and say "Let's play!"

At first my efforts to follow were stumbling, and I relied upon following his sound and fingering rather than sight-reading the Japanese tablature in front of me, but I gradually learned to follow the score. Physical demonstration was an important part of the learning process, as it is in many Japanese music traditions (Blasdel 2005:19, Gillan 2013:367), whether to check the head angle or finger angle for a shakuhachi technique, or to practice sustaining an ever-longer tone. Furthermore, I developed my awareness of the subtleties of timbre, pitch, and their transformations in the shakuhachi music, and of their evocative effect and fundamental role in conferring a distinctive identity upon the shakuhachi.

Although I had a 1.9 instrument, for the purposes of these lessons I was using a borrowed wooden practice flute of the default 1.8 length, with a base pitch of D. For months it felt as if I had to work hard to extract tones from this heavy, unwieldy, and unresponsive block of wood. Shortly before my departure from Japan, my teacher presented me with a tailor-made 1.8 bamboo shakuhachi, which he had had made for me by a friend of his who was an amateur shakuhachi maker. I met the maker at a lesson, so was able to thank him in person for his gift; I gave a deep bow accompanied by extended phrases of politeness and respect in Japanese to a chap lounging in a chair with a cigarette dangling out of his mouth….

Upon my return to London my shakuhachi activities dwindled, due to difficulties of finding a teacher at that time and other obligations. My interest in the instrument continued, however, ultimately leading to this Ph.D. and to lessons with the

shakuhachi player Kiku Day. As she concentrates solely on the traditional repertoire of *honkyoku*, on an unlined (*jinashi*) instrument with a greater timbral compass, the prominence of nuanced timbral techniques in the repertoire came to the fore. Prompted by an increasing awareness of the use of the instrument in contemporary composition, I began to wonder how the instrument had been combined with western instruments in this medium and how composers had used the shakuhachi timbre, so fundamental in defining the distinct sound of the instrument for many people. These musings were to provide the foundations of the questions asked in this Ph.D., albeit via a rather circuitous route.

This study emerged from the ashes of a previous Ph.D. focusing on the music of North India, which became unworkable due to medical difficulties in the field. Shortly after my return from India and during treatment for an unrelated illness, I resumed shakuhachi study and also returned to western art music, a field from which I had long been absent. At this juncture, I began to consider the interactions between the shakuhachi and western art music, and how these interactions could be framed in a discursive paradigm, questions which have come to fruition in this study. My early researches in the field were further motivated by an offhand comment made to me in which the speaker opined that there wasn't very much cross-cultural music of this kind. Even though my researches were only beginning, preliminary indications suggested quite the reverse; that there was a considerable corpus of cross-cultural shakuhachi compositions. Thus I resolved to investigate and present this corpus.

Although my new research direction was a very different from my previous Ph.D. study, my prior experience influenced the shape of the new study in terms of finance and fieldwork. I had planned my finances for one Ph.D., not two and illness. Furthermore, with regard to fieldwork, the cost of living in Japan is considerably higher than in India, and I didn't feel I could rely solely on obtaining funding. In addition, my experiences in India had rather put me off fieldwork, so I wasn't well disposed toward a fieldwork based study. The benefits of the analytic direction in which I was now heading were that it could be done without distant and extended travel, thus increasing its financial viability and enabling me to continue. I was also

aware that while long-distance travel is a cornerstone of ethmomusicological study, it is not a requisite.

As I was taking an analytic approach with cross-cultural compositions expressed in a western score based environment, I could in theory obtain these scores and recordings without distant fieldwork. With such an approach, this study falls under the auspices of the emerging field of analytic studies in world music, rather than a more conventional ethnographic methodology. Arguably interviews with the composers could have played a role in this, however my emphasis was on analytic timbral discourse in musicological analysis rather than an ethnographic perspective on timbre from the composers. In addition, whilst I have had casual contact with two of the composers who have generously allowed me to use their compositions, I was unable to establish any contact with Jordi Savall, the conductor and director of the improvisation analysed in Chapter 5. Consequently my analytic focus is consistent for all three works.

1.2 The scope of the study

This thesis examines the ways in which the Japanese shakuhachi flute has been combined with the compositional approaches and instruments of western art music in an emerging cross-cultural oeuvre, through a survey of composers and their compositions and through individual analyses of three contemporary compositions. In the analyses, I propose a new analytical framework by which I can focus on those shakuhachi attributes fundamental to the identity of the instrument, but which can be lost in translation to the hegemony of western art music discursive paradigms.

The Japanese shakuhachi flute evolved in a very different world with musical priorities distant to those of western art music, yet during the twentieth century a cross-cultural corpus emerged exploring these distinct musical spaces; how had this cross-cultural environment emerged? The end–blown bamboo flute developed as a solo instrument used as a tool by mendicant Buddhist priests, with an emphasis on the process of breathing and playing rather than the goal of the sonic output. In the shakuhachi tradition timbre is privileged with an integral role in the

movement and structure of the music, and is arguably its most identifiable feature, yet this wide timbral compass and broad array of timbral techniques are far from the conventions of much western art music. Timbre is also the most elusive musical attribute to define and discuss and thus the most likely to be lost in translation.

Despite the apparent incompatibility, twentieth century composers such as Takemitsu (1930–1996) sought to combine the shakuhachi (and other traditional Japanese instruments) with western art music and expressed these cross-cultural combinations through the medium of a western art music score. Conflating these two very different musical traditions has been a challenge not only for composers but also for analysts wishing to develop tools that facilitate an understanding of the music. The analyst must begin by acknowledging differences of epistemological categories in the musics concerned and by recognising their own musical/cultural bias in their learned cognitive categories of musical significance (Stobart and Cross 2000).

In the initial formulation of my study, I had planned to concentrate on Japanese composers, such as Tōru Takemitsu (1930–1996), Ryōhei Hirose (1930–2008), and Maki Ishii (1936–2003) who had all been published by significant publishing companies, however it quickly became clear that this would not be viable as it proved much more difficult to obtain the scores than I had hoped, with the exception of Takemitsu's *November Steps* (1967). Therefore I broadened my scope to any composer, anywhere, writing for shakuhachi with any western cross-cultural compositional approach and instruments with these questions in mind: what had attracted these composers to the shakuhachi and how had they combined the shakuhachi with a western compositional medium?

As a result of this broadening of my study, I came into greater contact with the international cross–compositional shakuhachi scene and accrued a large amount of information, from articles and texts (Benitez and Matsushita 1994, Samuelson

1994, Iwamoto 1994, Miki 2008) and from internet resources.[3] The majority of these composers are trained in the methods and approaches of western art music and have sought to combine the shakuhachi with western art music compositional approaches and instruments. As I researched this international cohort of composers, it became clear that the significant timbral and microtonal potential of the instrument had resonated with them (Regan 2006:7, Cronin 1994:77, Denyer 1994:48), and they have sought to explore those possibilities through their compositions.

Not only are timbre and timbral transformation techniques integral epistemological categories in generating the musical movement of shakuhachi music, the timbre of inharmonic 'noise' (Takemitsu 1995:65) and the transformations of timbre over time are also a valued part of sound-texture, which contrasts with the homogenous timbre of many western art music instruments. As timbre is the distinctive and defining sound of the shakuhachi for many composers, players, and listeners, and the most different from the western art perspective, focusing on analysis of timbre allows for explication of shakuhachi musical movement in relation to western art musics, and directly addresses the salient epistemological categories in which musical differences and concordances lie. This focus highlights the problem of how these timbral features can be represented in the analytical approaches and priorities of musicological discourse.

Therefore, developing an effective methodology for the analysis of shakuhachi timbre requires the analyst to consider definitions of timbre and methodological frameworks. In addition the many timbral techniques are also closely allied to pitch and microtonal movement in performance, with instability of pitch a desired outcome. Whilst microtonality is another feature of shakuhachi music which many composers have found attractive, microtonality per se is easier to accommodate and discuss within a western score based environment than timbre. Given that the timbral expressions on the shakuhachi are a composite of timbral, microtonal and other pitch features, and of dynamics, with pitch and dynamics playing a larger or

[3] See the Microsoft Excel databases on CD 1, spreadsheets 1, 2, and 3 for the full list.

smaller role in the timbral identity, any musical analytic model should also consider the role of pitch and dynamics in the performance.

Although timbre is an instantly recognisable part of musical experience, and has a high status in the music of East Asia with corresponding taxonomic and musical structures, (Wen-Chung 1971:213–221, 1991:180-181), it remains problematic to define and research. It is a complex physical phenomenon which does not have a primary role in the tradition of western art music. It has therefore received much less attention from analysts in that domain, with a corresponding lack of epistemological categories in western art music for conceptualising and working with timbre in verbal, analytical, musical and notational toolkits. The paucity of timbral categories in western art music is unsurprising when the close relationship between a music theory of the society and its cultural values is considered (Nettl 2005:111). In the introduction to his widely used textbook, *A Guide to Musical Analysis*, Cook commented that:

> …if analysts are less interested in timbral structure than in harmony and form, this may simply be because timbral structure is less interesting, or – what comes to the same thing - less amenable to rational comprehension. (Cook 1994:4)

The lack of tools and epistemological categories with which to approach timbre, and its relegation down the hierarchy of the western art music is not a valid reason to disregard timbre as an object of study. As Huron notes, such a positivist fallacy occurs when the "…*absence of evidence* is mistaken for *evidence of absence*." (Huron, 1999:4).[4]

Despite disinterest from traditional theorists and analysts of western art music, research into timbre, or sound texture, has proven more amenable to other fields of musical enquiry, from ethnomusicology (Lomax 1976, Feld 1990, Stobart 1996) to areas of science including music cognition and neuroscience, acoustics and computational modelling (Grey 1977, Sethares 1999, Toiviainen et al. 1995, Caclin et al. 2006, McAdams et al. 1995), with promising incursions in gestural analysis

[4] Ernest Bloch lectures at UCLA Music Dept., 1999: http://www.musiccog.ohio-state.edu/Music220/Bloch.lectures/Bloch.lectures.html (29 June 2015).

(Halmrast et al. 2010). These researches have facilitated effective definitions of timbre with sophisticated vocabularies and toolkits, which are applied to recordings and performances, with or without western staff notation, as staff notation does not focus on representation of timbre.

From these multifarious analytical approaches I aim to consider the possibilities of timbral discourse and analysis in cross-cultural composition for the Japanese shakuhachi flute and western art music. The first questions we need to consider are: how did the shakuhachi come to be combined with western classical music, and who are the composers writing for it? How international is this compositional cohort and is this reflected in their musical choices? How do they use the shakuhachi and in what instrumental combinations? Are some western instruments more commonly used with the shakuhachi than others? We also need to consider how timbre is framed, valued, and used within the shakuhachi tradition so that the timbral gestures used in the music can be recognised and their valued assessed. To frame the musicological analyses, we need to ask how timbre has been defined and researched and how effective have these various research perspectives been.

The methodologies used to consider the compositional cohort and the timbral analyses encompass two main areas: text and database analysis, and musical analysis. While discussion of the large compositional cohort is an effective means to document key themes, and diachronic and synchronic development, it is impractical to source and represent the entire corpus in this way, particularly as I only have limited data for the majority of composers and compositions. Therefore I have developed databases, using Microsoft Excel 2008, in which the composers, their compositions, and the instrumentation used are represented. I use these databases to survey the international scope of the compositional cohort, and their internationalism relative to the regional identity of the instrumentation they have used.

I then consider the instrumental combinations of shakuhachi compositions in more detail, considering the relative frequency of some instruments in relation to

the potential timbral relationship, with reference to Grey's (1977) model of timbral similarity and dissimilarity. From these surveys I hope to indicate that cross-cultural shakuhachi composition is very much alive and well through the efforts and engagement of a large, international compositional cohort. A cohort which, moreover, has been made available primarily through the efforts of Benitez and Matsushita (1994), Samuelson (1994), Iwamoto (1994), Miki, and his translator, Marty Regan (2008), and to which I have been able to make my own small contribution.

Having surveyed and discussed the extent and diversity of the international cohort of composers writing for the shakuhachi, I then turn my attention to the timbre of the instrument. I consider the context of timbre in East Asia, through its values and roles in genres of Japan, China, and Korea, before focusing on timbral values, roles, and techniques in the shakuhachi world. Following the establishment of this timbral context, I next turn my attention to analysis of the varied individual compositions for which I have been able to procure both score and recordings. Some of these were purchased online, while others were generously given to me by the composers. For this analysis I propose a gestural model, based primarily on Ben-Tal's (2012:251) and Hatten's (2006:8) respective gestural definitions; Tsang's (2002) conception of timbral rhythm and McAdams et al. (2004:157) proposition of timbral trajectory; and Uno Everett's (2002:132, 150) method of presentation. With these analyses I hope to illustrate the myriad and inventive ways in which these composers have used the shakuhachi, and to present a model of gestural analysis which can be applied to timbre in other contexts.

In Chapter 2 I will discuss the history and context of the shakuhachi, the introduction of western art music to Japan, and how the two came to be combined. There is a survey of the early composers, before I move onto a discussion of contemporary composers and their approaches. In Chapter 3 I present the database analyses of the internationalism of contemporary composers, and their general instrumentation approaches, and a more detailed analysis of instruments combined with the shakuhachi. In Chapter 4 I turn my attention to the timbral context of the instrument, with a survey of timbre in genres of East Asia, before

focusing in on the individual gestural analyses of three contemporary works in chapters 5, 6, and 7, and concluding in chapter 8.

The first work (Chapter 5) is the shakuhachi and biwa improvisation entitled *Improvisación sobre "O Gloriosa Domina"* (*Improvisation on "O Gloriosa Domina"*) (2011) from Jordi Savall's 2006 *Hispania and Japan*, performed by Ichiro Seki on shakuhachi and Yukio Tanaka on biwa. The project was recorded in 2006-2007 and released in 2011 by Alia Vox, the record label established by Jordi Savall and Montserrat Figueras in 1998.[5] The second work (Chapter 6) is Frank Denyer's *The Tender Sadness of Tyrants as they Dance* (1991) for shakuhachi and bass flute, performed by Yoshikazu Iwamoto on shakuhachi and Jos Zwaanenburg on bass flute, on a recording from the CD *Finding Refuge in the Remains* (1998), released by Etcetera Records.[6] The final work (Chapter 7) is Marty Regan's secular work *Forest Whispers…* (2008) for shakuhachi and cello, which was performed by Seizan Sakata on shakuhachi and Asako Hisatake on cello and released by Navona Records LLC. on a CD of Marty Regan's works,[7] *Forest Whispers… Selected works for Japanese instruments, Vol. 1* (2010).

In these analyses, I discuss the context of these composers, their approaches, and their relationship with the shakuhachi, followed by the analysis of the work. As these composers have been so generous in allowing me to use their works, which constitute a major contribution to this project, it is incumbent upon me to introduce them and the context by which their projects came to fruition.

1.3 Three contemporary works exploring shakuhachi timbre in a cross-cultural musical environment

Takemitsu's *November Steps* (1967) did much to aid the dissemination of the shakuhachi in contemporary western composition, through introducing the instrument to new audiences and by illustrating practical means by which the

[5] http://www.alia-vox.com (30 Apr. 2015).

[6] http://www.frankdenyer.eu/?page_id=67 (30 Apr. 2015).

[7] http://www.martyregan.com/store/recordings/forest-whispers/ (30 Apr. 2015).

shakuhachi could be combined with western instruments in a western notation environment. Subsequently, as explored in Chapters 2 and 3, a growing number of non-Japanese and Japanese composers have come to explore the sound–world of the shakuhachi in combination with western and non-western instruments and they have done so through cross-cultural juxtapositions, congruences, and the timbral priorities of a very different musical world. These experiments represent a diversity of musical approaches to the timbre of the shakuhachi and a wealth of resources with which to consider international expressions and expansion of cross-cultural shakuhachi composition.

As previously mentioned, my original aim was to consider the combination of the shakuhachi with western instruments, preferably an orchestra, through a score and recording of the work. As this focus was not feasible, I broadened my scope to include any shakuhachi works with western instruments by an international cohort of composers. From this cohort I researched composers from whom I could hope to obtain a score and recording of the work for musical analysis. Even in this context, access to both a score and recording were not always available; there were works that I would very much have liked to consider, where I was either unable to establish any contact with the composer and/or publisher, or was not able to access the work and/or recording.

As I wished to consider cross-cultural instrumental *interaction* between the shakuhachi and *western instruments*, in principle my parameters excluded solo compositions for shakuhachi and ensemble compositions in which no western instruments were used, such as the *shin-hōgaku* works by Minoru Miki (2008:207–227).[8] In practice, the primary determining parameter of works for this analysis was accessibility of scores and recordings. My western instrument interaction parameter expanded to include cross-cultural shakuhachi works which did not involve real-time musical interaction between the shakuhachi and western instruments but were nonetheless valid within the wider remit of this study, and one such work is subsequently discussed.

[8] See Chapter 3, §3.1.2.

Beyond these two parameters, I considered the number of compositions available from some individual composers. Many of the composers who have written for the shakuhachi have only written one or two compositions, as indicated on the databases of Chapter 3. Some composers, however, have written multiple works for the instrument in a variety of styles. The aim of the analyses in chapters 5, 6, and 7 is to provide a gestural analysis of a sample of the varied approaches to timbre in contemporary composition for the shakuhachi as explored by an international cohort of composers. As such, my goal is to consider the range and diversity of contemporary shakuhachi compositions and the myriad musical environments in which the shakuhachi has been used outside of its traditional musical context and geographical home, rather than the corpus of one composer. Therefore, I have restricted the study to one work from each composer.

Thus, I have accrued a sample of three compositions which reflect this internationalism and the musical diversity of contemporary shakuhachi composition as they have been written by an American composer (Marty Regan, b.1972), a British composer (Frank Denyer, b.1943), and directed by a Catalan musician–composer (Jordi Savall, b.1941) working with Japanese shakuhachi and biwa performers (Ichiro Seki and Yukio Tanaka, respectively).[9] The three composers have all come from a similar western art music background and have moved outward to explore and engage with the sounds, perspectives and approaches of 'other' musics distant in time, place or world-view, including that of the shakuhachi.

Marty Regan focuses on compositions for Japanese instruments, using an array of both Japanese and western instruments, while Frank Denyer has engaged with musics and musical instruments from a number of musical traditions. Jordi Savall, meanwhile, specialises in early musics from the Mediterranean region, particularly those of the Iberian peninsula. He has also extended his reach to engage with early musics from traditions further afield, such as Japan.

[9] I have not been able to obtain D.O.B. for either of these performers.

From their experience, these composers and performers explore the shakuhachi through distinct and varied cross-cultural approaches and instrumental combinations, which nonetheless explore qualities common to the shakuhachi: timbre and microtonality. As recounted in Chapter 4, these are the attributes that fascinate most composers who encounter the shakuhachi and it is worth noting that these attributes are not specific to the shakuhachi, but are also integral to other musical traditions in Japan, particularly that of the biwa.[10]

These three composers offer a snapshot of the international connections and collaborations that have been forged between Japanese traditional music and international cross-cultural musical engagement. The Catalan Renaissance musician–composer, Jordi Savall, who has collaborated with musicians from many different music traditions over the years, worked with a shakuhachi player, Ichiro Seki, and biwa player, Yukio Tanaka for this project. These two Japanese musicians can trace their heritage back to Katsuya Yokoyama (1934–2010) and Kinshi Tsuruta (1911–1995) respectively, who both worked with Tōru Takemitsu (1930–1996) on his seminal cross-cultural work, *November Steps* (1967).

Likewise, the shakuhachi player for Frank Denyer's (b.1943) work, *The Tender Sadness of Tyrants as they Dance* (1991), Yoshikazu Iwamoto (b.1945), was also taught by Katsuya Yokoyama. Iwamoto, who now lives in the UK, was employed by Wesleyan University in the U.S. and there met the English composer Frank Denyer, from whom he commissioned a work, thus beginning a long and fruitful relationship. Marty Regan (b.1972), meanwhile, studied in Japan under the prolific *hōgaku* composer Minoru Miki (1930-2011), and works with Aura-J, an ensemble that specialises in new repertoire for traditional Japanese instruments, for whom the shakuhachi player Seizan Sakata is currently president.[11]

[10] A four or five stringed plucked lute. See Chapter 3, §3.3.4.3 and Chapter 5, §5.2.

[11] http://www.ora-j.com/englishright.html (1 Jun. 2015), http://www.outreach.hawaii.edu/community/programs/2010/EVENT-EV0010831T.asp (1 Jun. 2015).

In two of the compositions, the shakuhachi is combined with western instruments, while the third is an improvisation performed on shakuhachi and biwa using western material. Marty Regan's *Forest Whispers…* (2008) was written for shakuhachi and cello, while Frank Denyer's *The Tender Sadness of Tyrants as they Dance* (1991) uses shakuhachi and bass flute; the bass flute is a twentieth century innovation and remains a comparatively unusual choice, although, like the shakuhachi, more repertoire has been written for it in recent years as will be further discussed in the introduction to Chapter 6.

The *Improvisación sobre "O Gloriosa Domina"* (Improvisation on "O Gloriosa Domina") by Seki on shakuhachi and Tanaka on biwa is based on a western plainchant, which formed part of a cross-cultural Spanish-Japanese collaboration, directed by Jordi Savall, commemorating historical contacts between the Spanish and the Japanese. It is worth noting that as the distinctive style of this improvisation is based on a western plainchant, it is anomalous among most shakuhachi improvisations, which tend toward avant-garde jazz.[12]

Arguably, this work fell outside the parameters of a cross-cultural composition for shakuhachi and western instruments, being both an improvisation and performed by two Japanese instruments. As a work, however, that formed part of a larger cross-cultural project celebrating cross-cultural historical ties, with an international cohort of musicians and based on western musical material, I deemed it appropriate for inclusion. This allowed me to focus on one work from the wider variety of contemporary shakuhachi cross-cultural contexts than that of composition alone. As Regan expresses it:

> A 'multicultural' or 'East-West fusion' [sic] composition can be approached in a number of ways. However, in its simplest form, it refers to any type of music that embodies some multicultural trait and which has some kind of crossover, whether it be an art song which uses a Japanese text, a piece for Western instruments that borrows harmonies and melodic patterns from *gagaku* (Japanese court music), a piece for traditional Japanese instruments which uses textures commonly found in twentieth-century music, a piano piece that uses interlocking patterns similar to Balinese gamelan, or a piece for traditional Japanese instruments based on Australian Aboriginal dreamtime myths. (Regan 2006:1–2)

[12] See Chapter 2, §2.3.

In addition, although there is no score for the improvisation, transcription was a viable alternative, especially as this was an improvisation for only two instruments with a short duration of 3'16". Transcription of a musical tradition into staff notation evolved as a means of recording unrecorded traditions prior to the advent of recording technology, however transcription also raised questions over the epistemological and practical limitations of staff notation in representing forms of musical expression outside its own parameters (Nettl 2005:74–91, Ellingson 1992:110–152), which I discuss in more detail in Chapter 5 with the analysis of the shakuhachi and biwa improvisation. Nevertheless, as these authors observe (ibid.), transcription has remained a key tool in the ethmomusicological armoury as a means of accessing and learning about a music.

Since the early days of transcription, its function has shifted, whereby transcription may now be used to address particular problems (Ellingson 1992:141-142), and it is with this intent that I apply transcription here, as a means of notating an improvisation to represent performance practices that are not readily representable in staff notation. In order to notate these gestures, I use well-established staff notation conventions (Lependorf 1989, Cronin 1994, Denyer 1994, Miki 2008, Ueda)[13] for the two instruments concerned.

There is also the question of improvisation per se. Although there is a significant body of work on improvisation (notwithstanding jazz) in ethnomusicology (Bailey 1993, Nettl and Russell 1998, Gray 2011), and it would be interesting to view Seki and Tanaka's *O Gloriosa Domina* improvisation from that perspective, as my focus is on a gestural analysis of timbre rather than on improvisatory practices and is moreover, based on an audio recording and a transcription (i.e. not video or live performance), a focus on the improvisatory processes is not the purview of this study.

The format of the musical organisation of the project raised a further issue of performance and analysis; while the shakuhachi and other Japanese instruments

[13] http://www.junkoueda.com (10 Jun.15).

are part of this cross-cultural project, the music performed by the shakuhachi player, Ichiro Seki, is not actually performed with other western instruments, rather the shakuhachi is either solo or combined with the biwa. Nonetheless, I chose to use it because of the western melodic material from which the shakuhachi and biwa derive their improvisations, amid the total context of a western-Japanese cross-cultural collaboration.

The variety of styles exhibited in these compositions highlighted the need to develop a consistent approach to their musical analysis, in order for a parity to be established by which the use of timbre and microtonality can be compared. As mentioned above and discussed in more detail below, gestural analysis proffered the possibility by which this could be achieved, through viewing timbral and microtonal techniques as gestures, which provided a musical paradigm through which timbral structures, rhythms, and overall trajectories within a work could be discussed, based on definitions of gesture (Ben-Tal 2012:251, Hatten 2006:8), timbral rhythm (Tsang 2002:35–36), and timbral trajectory (McAdams et al. 2004:157).

Crucially, this method allows each diverse work to be discussed within its own framework, with the gestures specific to that context, whilst enabling themes and techniques common to all the composers to be compared on an analytic parity. The gestural analysis is aided by a gestural overview of each work, which is presented using Uno Everett's (2001:132, 150) method of presentation. The transcription of the improvisation is included in the text and all three scores (one transcription and two compositions) can be found on the accompanying CD; the length of Regan's and Denyer's compositions rendered the inclusion of their scores in the text impractical, nor would the inclusion of the scores in an appendix make for easy access when comparing the score against the text.

1.3.1 Jordi Savall and the *Hispania and Japan* project

Jordi Savall (b.1941), who originally trained as a cellist, is a Catalonian viol player, composer and conductor specialising in Medieval, Renaissance and Baroque music with a focus on the Hispanic and Mediterranean music heritage of those eras. His performances of these works are often presented by the ensembles that he founded with the late singer Montserrat Figueras (1942–2011): Hesperion XX (1974), now known as Hesperion XXI; La Reial de Catalunya (1987); Le Concert des Nations (1989), all of which are represented by his record label Alia Vox.[14]

Throughout his career he has engaged with musics of other cultures, exploring early music cross-cultural engagement such as that seen in the project *Istambul Dimitrie Cantemir 1673-1723 <Le Livre de la Science de la Musique>* (Alia Vox, 2009) in which the ensemble Hesperion XXI and guest musicians explore the Sephardic and Armenian influences on Ottoman music of that era. Savall has correspondingly worked with musicians from a wide variety of music cultures, for that and other projects, including: Arabic, Israeli, Greek, Armenian, Turkish musicians, and from further afield Afghan, Mexican and Japanese musicians, and it is this last that is most significant for the purposes of this study.

In 1996 Jordi Savall sought to commemorate the sixteenth century arrival of the Jesuits in Japan, who were led by Francis Xavier with a cross-cultural concert of Japanese and Spanish musicians. Ten years later, most of those musicians reunited to celebrate the quincentenary of the birth of Francis Xavier, with a series of works based around a plainchant from the Order of Mass, known as the Manuale ad Sacramenta, published in Nagasaki in 1605. These works were released on the album *Hispania and Japan: Dialogues* (Alia Vox 2011). Overall, the cross-cultural performance context of this project is distinct from the works of other composers used in this study in material, context, and intent, as Savall's *Dialogues* has overtly sacred content, was performed in a church for the recording, and is intended as a celebration of the brief Catholic presence in Japan in contrast to the secular context of the two compositions. The works are performed on early western and Japanese

[14] http://www.alia-vox.com (23 Feb. 2015).

instruments, including shakuhachi, and are performed by western and Japanese musicians and it is the improvisation on this plainchant, *Improvisación sobre "O Gloriosa Domina"* by the shakuhachi player Ichiro Seki and the *satsuma*-biwa player Yukio Tanaka on which we focus in Chapter 5.

Ichiro Seki studied with Katsuya Yokoyama (1934–2010), the shakuhachi player with whom Takemitsu (1930–1996) collaborated in the composition of *November Steps* (1967). Seki also studied composition with Yoriaki Matsudaira, the son of a prominent postwar composer[15] and has been a recipient of several composition prizes alongside an international career as a shakuhachi performer, including cross-cultural works.[16] There is a nice continuity here as the biwa player in this improvisation, Yukio Tanaka, studied with Kinshi Tsuruta, the *satsuma*-biwa player who worked alongside Yokoyama with Takemitsu on *November Steps* (1967). Tanaka subsequently studied at the NHK *Hōgaku* Music Academy and won first prize in the Japan biwa Music Contest, then went on to an international career as a biwa performer, including collaborations with Kinshi Tsuruta and Katsuya Yokoyama.

1.3.2 Frank Denyer and composition for the shakuhachi.

Frank Denyer (b.1943) is an English composer for whom a "keen sensitivity to sound" is fundamental to his compositional approach.[17] His primary training is western classical; he was a chorister in Canterbury Cathedral as a boy, however he later went on to explore musics of other cultures through research on musical traditions in East Africa, India and Japan. His first encounter with the shakuhachi came during his ethnomusicology Ph.D. at Wesleyan University when he met the shakuhachi player Yoshikazu Iwamoto, who was an artist-in-residence in the music department and who commissioned Denyer to write a shakuhachi work in

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[15] Yoriaki Matsudaira is the son of Yoritsune Matsudaira, a prominent post–war nationalist composer. See Chapter 2, §2.2.3.

[16] http://www.komuso.com/people/people.pl?person=306 (30 Apr. 15), http://www.shakuhachi.com/R-Shaku-Seki.html (30 Apr. 15).

[17] Bob Gilmore, author of the introduction on Frank Denyer's website: http://www.frankdenyer.eu (30 Apr. 15).

1976. This heralded the start of a long collaboration that resulted in a number of works for the shakuhachi spanning four decades. His shakuhachi corpus includes solo and ensemble works, such as *Quite White* (1977) and *Unnamed* (1997) for solo shakuhachi, *Stalks* (1986) for shakuhachi, bass recorder and viola, and *The Tender Sadness of Tyrants as they Dance* (1991) for shakuhachi and bass flute, in which he explores the privileging of timbre as a core structural component of cross-cultural musical exchange in a non-traditional context, and this is the work considered in Chapter 6.[18]

Early in his compositional career Denyer sought to challenge the established orthodoxy of melodic articulation and tuning systems, with experiments into other tunings, microtonality and methods of musical articulations. As he realised, it was not enough to simply provide a musician with an unfamiliar musical instrument since the dominant music culture of the musician will have a profound influence on the way the musician interacts with the new instrument (Denyer 1994:46–47). To explore unfamiliar musical expressions and attributes required closer interaction with musicians from those cultures in which those features were privileged. Therefore, he began to experiment with writing music that could be performed by any musician from any culture, which culminated in the work *Melodies* (1974–77) (ibid.). This led to a Ph.D. in Ethnomusicology at Wesleyan and the aforementioned meeting with Yoshikazu Iwamoto, from which Denyer's long association with the shakuhachi developed.

1.3.3 Marty Regan and composition for the shakuhachi

Marty Regan (b.1972) is an American composer who specialises in Japanese music and studied in Japan with the prolific *hōgaku* and *yōgaku* composer Minoru Miki (1930-2011);[19] he has also had tuition on Japanese instruments. His composition *Song-Poem of the Eastern Clouds* (2001) for shakuhachi and 21-string *koto* was premiered at the 5th Annual Composition Competition for Traditional Japanese Instruments at the National Theatre of Japan.[20] Since then, he has written

[18] http://www.frankdenyer.eu (23 Feb. 2015).

[19] See Chapter 2, §2.2.3 and Chapter 3 §3.1.2.

[20] http://www.martyregan.com/biography/ (23 Feb. 2015).

numerous compositions for the shakuhachi and other Japanese instruments, many of which involve western instrumentation. He combines shakuhachi and western instrumentation in *Forest Whispers…* (2008), *The Memory Stone* (2012) a one–act opera for shakuhachi, 21-string *koto*, string quartet and four singers, *Hydrangea* (2012) for shakuhachi and double bass, *Voyage* (2008) for shakuahchi and string quartet, and *In Remembrance* (2006) for shakuhachi and piano trio (piano, violin, and cello). In *Forest Whispers...* (2008), Regan offers a cross-cultural meeting through timbre in a western medium, and this is the work discussed in Chapter 7.

Scanning the instrumentation used in his shakuhachi–western instrument compositions,[21] an obvious observation is the dominant use of western string instruments with shakuhachi. Cross-cultural elements in Regan's music are present from the foundations upward; he is a western composer writing for Japanese instruments and doing so in a manner outside the conventions of traditional practice for the Japanese instruments in his scoring, use of instrumentation and style.

For the works that include western instruments, his compositions fall under the purview of *yōgaku* (western style music), while his compositions that employ solely Japanese instruments blur boundaries between *hōgaku* (traditional music), *shin-hōgaku* (new traditional music), and *yōgakui*.[22] In his *yōgaku* compositions such as *Forest Whispers…* (2008), for shakuhachi and cello, he attempts to blend the two instruments, from distinct music cultures, so as to highlight similarities and correspondences between them.[23]

[21] http://www.martyregan.com/list2/shakuhachi/ (30 Apr. 2015).

[22] See Chapter 2, §2.2.3, 2.3, Chapter 3, §3.1.3, and Chapter 7.

[23] http://www.martyregan.com/list2/shakuhachi/forest-whispers/ (30 Apr. 15).

1.4 Review of the literature

1.4.1 Shakuhachi sources

Over the past fifty years or so there has been a proliferation of research on the shakuhachi outside Japan and in languages other than Japanese, from both academic and non-academic sources. These sources focus on the history of the instrument, its traditional schools, repertoire and techniques in individual studies and texts (Gutzwiller 1975, 2005; Blasdel 1984, 1988, 2001, 2003; Takahashi 1990; Lee 1998; Sanford 1977: Tsukitani 1994, 2008; Day 2009), and in wider histories of Japanese music (Harich-Schneider 1973, Malm 1959; 2000). While the shakuhachi histories presented in these sources are of variable approach and agreement over earlier historical veracity, they have all enabled a broad narrative of the history of the instrument to be constructed, with increasing detail as we approach the contemporary era.

Sources document the adaptations and diversification of the instrument from its traditional environment into a wider world (Tsukitani 1994, 2008:145–168), recounting the processes by which the shakuhachi engaged with a wider society, through the development of a secular repertoire at home and abroad (Takahashi 1990), and through the transmission of the shakuhachi as a Buddhist tool on the international scene (Keister 2004). These sources focus on emerging engagements with new environments outside the earlier Buddhist practice in Japan, however discussion of these new performance contexts retains an emphasis on conventional Japanese musical spaces and instruments with less discussion of the nascent repertoire for the shakuhachi as a cross-cultural compositional tool.

Although compositions and composers per se have received less musical and ethnographic analysis, approaches to writing for the shakuhachi have been considered (Miki 2008, Denyer 1994, Cronin 1994, Samuelson 1994, and Iwamoto 1994), and compilations of composers and compositions provided by Benitez and Matsushita (1994), Samuelson (1994), Iwamoto (1994) and Miki (2008). While the Benitez and Matsushita (1994) compilation has no discussion of the composers listed, and the compilations by Samuelson (1994) and Iwamoto (1994) provide

only a brief outline of post-war compositional trends, these sources provided the genesis of the construction of the databases presented in Chapter 3, to which other contemporary composers were then added. I was keen to use these lists, and the databases seemed the obvious means by which I could do this[24] although large–scale database analysis per se raises musical questions. These are subsequently discussed in the review of statistical literature and ethnomusicology.

Exception of literatures that do focus on contemporary composition for the shakuhachi include Day's practice-based Ph.D. thesis (2009), on repertoire for the *jinashi* (unlined) shakuhachi, and articles by Denyer (1984, 1994) reflecting on his own composition. Articles by Iwamoto (1994) and Samuelson (1994) review post-war and contemporary composers up to the early 1990s as part of their aforementioned compilations. While these studies have begun to provide insight into the emerging field of cross-cultural shakuhachi composition, there are as yet no full-length studies of the large, international, contemporary cross-cultural shakuhachi compositional milieu. It is this area in which I hope to make a small contribution.

For contemporary composers, my sources were textual and internet–based, with frequent recourse to the websites of composers and publishers, and the websites of shakuhachi organisations and organisations for composers, of which there are too many to list here.[25] The quality and substance of the information available varied considerably. In some cases, I was able to obtain detailed information on works and biographical details for the composer, whilst from other sources I was only able to obtain the barest details.

Furthermore, not all contemporary or recent composers have an internet presence of their compositions. Some twentieth century composers were active before the widespread adoption of the internet, other composers are not full-time or only dallied briefly with composition for the shakuhachi, or choose not to advertise their compositions online. Furthermore, whilst I have some Japanese competency,

[24] See Chapter 3.

[25] See CD 1, track 1 spreadsheet 5, and the bibliography.

my Japanese is not good enough for extensive searches on Japanese websites. This placed an obvious limit in researching contemporary Japanese composers in this study, however such avenues could potentially be explored in a future study.

1.4.2 Sources documenting western art music in Japan

Until comparatively recently, western art music in Japan had, overall, received comparatively little English language attention, although some studies have now begun to address this deficit (Herd 1987, 1989, 2008; Galliano 2002,). Even so, there have still not been many studies on individual composers from researchers outside Japan. Exceptions to this coverage are studies on the composer Tōru Takemitsu from researchers such as Burt (2011), Siddons (2001), de Ferranti and Narazaki (2002), and Smalldone (1989) to name but a few. Burt's (2001) study offers a comprehensive overview of Takemitsu's music, alongside Siddons' (2001) indispensible bio-bibliography, while de Ferranti and Narazaki's (2002) compendium of articles, to which they contribute, covers a variety of analytical approaches to Takemitsu's life and works, including Uno Everett's (2002:125–154) study of gestural synthesis in November Steps and Autumn, from which I derived my model for the presentation of my gestural analysis.

Most of these studies are written by western art music trained musicians, composers, and musicologists, so whilst they provide in-depth, detailed accounts of Takemitsu's life, works, aesthetics, and so on, they often do not refer to Japanese traditional musics; quite simply the writers lack the musical knowledge to do so. One notable exception to this is de Ferranti's (2002:43–71) study of the biwa, the Japanese lute used in Takemitsu's *November Steps* (1967), in which he considers Takemitsu's relationship to the instrument.

With the focus of this thesis is on contemporary composition for the shakuhachi, an instrument of which I have personal experience, I hope to contribute to the use of traditional Japanese instruments in the emerging discourse of cross-cultural composition. In addition, I hope to do this with a new analytical model that I propose, which can be used to analyse the timbre of the shakuhachi and perhaps

other timbral traditions. Before we can consider these timbral excursions, however, we first turn to a review of analytical approaches to timbre.

1.4.3 Sources in the analysis of timbre

Despite the disinterest in timbre from traditional theorists and analysts of western art music previously outlined,[26] research into timbre has proven fruitful in fields of enquiry from ethnomusicology (Lomax 1976, Feld 1982, Stobart 1996) to areas of science including music cognition and neuroscience, acoustics and computational modelling (Grey 1977, Sethares 1999, Toiviainen et al. 1995, Caclin et al. 2006, McAdams et al. 1995, Bailes 2007), with promising incursions in gestural analysis (Halmrast et al. 2010). While these and other fascinating researches have facilitated effective definitions of timbre with sophisticated vocabularies and toolkits, which can be applied to recordings and performances, with or without western staff notation, their often unwitting reliance on western musical paradigms may undermine their researches, a problem which is outlined below.

Notable exceptions to this western bias include Sethares who explicitly references Indonesian music in his seminal text *Timbre, Tuning, Spectrum, Scale* (1999) and McAdams et al. (2004), whose recognition of other forms of music-making is an important conceptual basis to their postulation of a timbral trajectory, which I use in my model for a gestural analysis of timbre. Otherwise, ideas from the field have informed my research and provide a useful perspective for understanding sound. Furthermore, a small cohort of researchers have considered the impact of such cross-cultural questions in practice, although there is rarely any cross–over between cross-cultural and timbral studies. Nevertheless, these cross-cultural studies are reviewed below.

1.4.4 Timbre in the sciences

While progress in understanding timbre has been made through the fields of enquiry mentioned above, the predominant frame of reference of the researchers has remained that of western art music, which has not always been acknowledged

[26] See Chapter1, §1.2.

in the definition of research parameters. This reliance on western art music, particularly when its cultural specificity is not acknowledged and the findings are assumed to be universal, not only undermines the research methodology, but may also render hypothesis and thesis invalid.

Questions of timbre that have been addressed using the existing paradigms of those fields have often served only to restate the assumptions of their research paradigm; a confirmation bias. Serman and Griffith (2002:152–154) caution researchers against implying that the constructs of western tonal music are a priori analytic categories in musical perception, else methods and approaches embedded in this culturally-specific perspective will produce results based on information that can be extracted from it, in a circular methodology that serves to strengthen its hegemony. Bailes' research on the perception and imagery of timbre falls into this trap, and raises questions of ecological validity with her premise that "In the tradition of western classical music, timbre has a cosmetic value, acting as a carrier for melody and harmony." (Bailes 2007:21)

Such concerns of a priori perceptual analysis, and methodological design casting a shadow on research methodology are attested by Stobart and Cross (2000) who demonstrated that the rhythmical processing and subsequent meaningful pattern constructed by the western researcher (Stobart), whose primary musical domain was that of western classical music, was not the same as that of the Potosí people in the Bolivian Andes. Equally Krumhansl's (2000) work on cross-cultural cognition of melodic expectation of North Sami *yoiks*,[27] which are very different from western classical music, identified that whilst those participating western listeners who were unfamiliar with *yoiks* but were familiar with western music were quick to adapt to the musical style, their adaptation was incomplete, with their predominant western musical schemas having a greater influence on their ability to effectively judge melodic expectation in the Sami *yoiks*.

[27] A traditional form of sustained phenomenological vocal expression among Sami communities in northern Scandinavia: http://www.utexas.edu/courses/sami/diehtu/giella/music/yoiksunna.htm (8 Jul. 2015).

Furthermore, whilst computational and laboratory-based studies have greatly facilitated discussion of timbre (largely through quantification), these are simulated conditions in which fragments of sound, often synthesized, are dissected rather than being a real-time musical context with the performer and listener at the core of the whole experience. This methodological problem was recognised by Gutzwiller and Bennett in their study of shakuhachi acoustics in single tones (1991:152–154). Music, after all, is more than the sum of its parts.

While knowing the sum of the parts enables greater understanding of the musical-more-than-whole, how we target the epistemological framework depends upon the subject and our aims. Epistemological categories cannot be analysed without a working definition of those categories, therefore we must consider whether we wish to evaluate the musical whole, targeting aspects of the musical experience within its context, or do we wish to dissect the music into micro-elements so small that considering the musical whole of which they are a part becomes problematic? Whether the twain can meet in a combined approach is a study for another day, since the focus for this study is the musical whole of cross-cultural engagement.

1.4.5 Timbre in ethnomusicology

Ethnomusicology has proven more fruitful for addressing the different cultural paradigms and culturally embedded significations of timbre, many of which may accord timbre a higher status than is the case in western art music. As such, ethnomusicologists have a more effective toolkit at their disposal with which to accommodate the idea of timbral difference and the meaningfulness of timbre and sound in another culture than that of western classical music. Such insights of culturally embedded meanings, privileging and taxonomies of timbre and sound have been investigated by researchers such as Feld (1982), Stobart (1996), Lomax (1976). A useful insight to the embodiment of musical knowledge through timbre came from Oesch's work with the Negrito people of the Malacca peninsula in Malaysia, in which he observed of their music that:

> Studies have shown that timbre is the principal carrier of information in instrumental communication of this sort. The *Negrito*…develop an almost

> uncanny capacity to distinguish nuances of tone color, [sic], a perspicacity which is almost inconceivable to us. (Oesch, n.d. Record sleeve notes)

Using timbre, or sound-texture, not only as a vehicle for musical knowledge, but also as a vehicle for social and cosmological knowledge has been illustrated by Feld's (1982) seminal research with the Kaluli people of Papua New Guinea, in which he revealed how a complex taxomony of sound could play a prominent role in defining their world and by Stobart's (1996) research in the Bolivian Andes in which he explicates the role and significance of timbre in the cosmology of the Potosí people.

Stobart (1996) presents an environment in which the timbres of specific flutes (*tara* and *q'iwa*) relate to specified extramusical context such as the seasonal mating of llamas, and to particular related general cultural ideas such as gender roles. In addition to illustrating how the timbres of flutes have direct musical and extramusical epistemologies of cultural signification, by so doing he also presents a model for the extrapolation of timbral epistemologies in other cultural contexts such as the shakuhachi in Japan. He draws on Feld's (1990) work 'Sound and Sentiment', in which Feld applies structural linguistics to the sound–world of the Kaluli people in Papua New Guinea, and Turino's research in the Peruvian Andes, in which Turino examines the meanings of music and musical instruments using Peircian semiotics.

Before a musical category can be approached it must be acknowledged and appropriate tools sourced. All of these researchers demonstrate how timbral epistemologies can be acknowledged and approached in non-western musics. Potentially, Stobart's model of explicating the musical and extramusical significance of timbre could be applied to the shakuhachi, however the model would need careful adaptation to the very different environment of the Japanese shakuhachi. Amerindian rural communities in developing countries are a very different place to densely populated urban hi-tech Japan and the musical context of the Andes is likewise very different to that of the shakuhachi, in form and function.

Stobart (1996) explains the immediate musical context and provides organological

detail before addressing the wider extramusical connotations of the different timbres, primarily how certain sounds reflect and are considered to act upon social and cosmological structures. In this context, therefore, timbres have an epistemological value in ordering the phenomenal and noumenal worlds. He examines the strong associations between timbres, tunings, instruments and genres with agricultural and festive calendars, which may all be present in one package. These associations have direct, concrete applications; certain timbres may be considered to have an impact on climatic conditions, to induce rain for example. Furthermore, performance on instruments outside their designated context is prohibited and may be punishable.

Comparing the varied semantic images associated with the terms *tara* and *q'iwa*, which represent reciprocal and opposing timbral categories, Stobart illustrates the means by which musical timbres can be related to extramusical meanings, which can deepen our understanding of these timbral categories and their musical application. *Tara* and *q'iwa* are often used to describe paired *pinkillu* flutes, with *tara* referring to the longer, lower-pitched, more resonant flute while *q'iwa* refers to the shorter, higher, less resonant flute. *Tara* is described as a mixed sound or two sounds, associated with a hoarse voice or hoarse animal cries, whereas *q'iwa* is a single, clear sound associated with bird cries and 'cry-baby' children.(Stobart 1996:68–71)

Stobart notes that the duct flutes are tuned and blown very strongly with the aim of producing a "rich, dense sound…and 'stammering' quality" (Stobart 1996:70). This aesthetic ideal, rich in harmonics, includes breadth of tone, and time through the stammering effect of strong difference beats. By contrast, the *q'iwa* sound of a single instrument is seen as inferior, and *q'iwa* may even be applied with direct negative connotations to describe an out of tune instrument.

The sound of *pinkillu* flutes is intimately linked with the mythologies and understanding of life in the Andes, and may even regulate seasonal activities (Stobart 1996:74–79). The term *tara* is used in a musical context and to describe the natural world, and in each case conveys the same positive value, indicating a

clear organised epistemological structure of association of sounds with nature. The flutes are only played during the rainy season, to attract rain and repel frost, and are associated with the dead, who are thought to help crops to grow. Sirinus, or Sirens, spirits between our world and the world of the dead, live in certain springs, waterfalls, gullies or large rocks and are associated with musical creation are also thought to sound like *pinkillus*. The *tara* sound of paired *pinkillus* also refers to social grouping; companionship is good, while solitary activity has negative associations:

> My host explained that tara was parenintin, which means "always paired" and that even multiples of two, such as the numbers four and eight were also tara…. Q'iwa, on the other hand was always said to be ch'ulla meaning 'single' or "alone", a concept which refers to objects that belong in pairs but have become lost and separated from their partner…. Sometimes when explaining the term people would relate it to the sadness of being alone or to death… The dead are ch'ulla because they die singly. But once they reach alma llajta, the world of the dead, they live as we do, in couples or families and are no longer ch'ulla or sad. (Stobart 1996:72)

With this we can see some of the extramusical associations, of the *pinkillu* flute sounds, in social and cosmological terms. For the shakuhachi, as with the *pinkillu* flutes, thick timbres are very much a prized feature of the instrument, are desirable in other Japanese musical and artistic traditions, and have extramusical significance. These timbral values and extramusical significance are located within an East Asian framework, which will be considered in the next chapter.

The use of sounds as a cultural (symbolic) system that embodies a cultural ethos in which sounds are associated with particular meanings was analysed by Steven Feld, and documented in his book *Sound and Sentiment: Birds, Weeping, Poetics, and Song in Kaluli Expression*. He used structuralist and ethnographic methods for his research in explicating the sound world of the Kaluli and its significance in embodying societal meaningfulness, giving a demonstration of how timbre can be signified in its cultural context. For the Kaluli people, on the Papuan highlands, timbre is an integral component in the sonic association of particular sounds and forms of musical expression with sounds of birds and specific natural phenomena

such as water. Feld summarises the integration of timbre with other sound attributes with an example of the notion of pacing (*gulu*) in a *gisalo* song:

> Kaluli indicated three levels at which *gulu* applied in the pacing of *gisalo*: the bodily movement of the dancer, the pulse and timbre of the *sob* mussel shell rattle accompanying all *gisalo*, and the pulse and timbre of the *fasela*, the streamers of shiny yellow stripped palm leaves that are a basic part of the dancer's costume. (Stobart 1982:171–172)

He summarises the structure of *gulu*, or 'flow' in pacing as:

> …a metric pulse of [one crotchet] = 120; a timbral notion of resonance and continuity of sound while maintaining distinct pulses; prescriptive ideas of [hesa] 'gently' and *dinafa* 'carefully'; and symbolic equivalences between dancer, [wokwele] bird, and sound/ movement location at a waterfall. (Stobart 1982:174)

Originally Feld planned to use ethnoscience methods to analyse the soundworld of the Kaluli, and this was proving problematic, as he was imposing a system of knowledge construction – isolation and reduction – onto a domain of experience that the Kaluli do not isolate or reduce (Feld 1990:44–46). A potential solution came with an insight triggered by a comment made by a member of the Kaluli people to Feld:

> …to you they are birds, to me they are voices in the forest. (Feld 1990:45)

With this comment, from a member of the Kaluli tribe of Papua New Guinea, Feld became aware that his notion of using ethnoscience as a conduit for equitable exchange was flawed. Much has been written on the subject of language signification, how words signify meaning and are communicated between parties, with approaches by Saussure and by Peirce dominating the discipline. Their models of signifier (Saussure), or representamen (Peirce), and signified (Saussure)[28], or interpretant (Peirce)[29] are extrapolated based on observation of context and use; these models cannot be hermeneutic actions of thought processes.

[28] http://www.learn.columbia.edu/saussure/ (24 Jul. 2015).

[29] http://plato.stanford.edu/entries/peirce-semiotics/ (24 Jul. 2015).

I do not consciously think through a chain of associations, rather I think those associations. I think the things-in-and-of-themselves, at a speed much faster than the written word can convey, and the things/ideas/associations that I think are not necessarily verbal ideas or associations – which does not mean that they are not ideas (when is an idea not an idea?)

Perhaps the question here should be how we define the idea of idea rather than trying to prove or disprove a neurophysiological process. So for the Kaluli people, the sound-is-forest voice-is-sadness (with experienced/felt emotion), rather than the explicitly learned chain that the sound is of the x bird which signifies sadness (which is less likely to have here-and-now emotion, or to put it in neurophysiological terms, the amygdala in the limbic system of the brain is less likely to have received a surge of electro-chemical energy simultaneous with the processing of the semantic association of the word). The hermeneutic reality is of the meaning of bird sound and experiencing the associated sadness, which ethnoscience may not readily circumvent, as it constitutes an explicitly learning etic (outsider) sequence rather than an emic (insider) reality with here–and–now emotive signification.

In addition the application of an outside system suggests that the indigenous system is somehow invalid as a means of understanding the world. Feld's difficulties and insights in this area provide a cautionary tale of the need to use a culturally appropriate research model. It is also another articulation of the circular research paradigm identified by Serman and Griffith (2002:152–154), which does little to inform us of the distinct cultural content and may easily miss salient features, structures and associations through want of an emic perspective on the culture and its music.

In this context, Feld illuminates a world with a cultural ethos where sound is a "… dominant cultural means" (Feld 1990:84) in Kaluli social and cosmological systems, and the meanings associated with sound are myriad, pragmatic, and spirit world-related. As already noted, bird sounds are particularly important as they embody Kaluli phenomenal and noumenal concepts, and are used on a daily pragmatic

basis for organising time, space, season and weather such as when hunters are following trails in the forest, locations will be organised relative to the location of the sounds of birds; auditory rather than visual clues. The importance of bird sounds extends beyond such pragmatic concerns to embody fundamental notions of Kaluli social organisation, origins and afterlife, which coexist with recognition of a bird sound as avifauna. These sounds and other accurate natural history observations are organised by auditory and other taxonomies, which embody cultural signifiers, such that bird sounds are simultaneously sounds of avifauna and sounds of the dead, or have mythic properties.

A central myth in the Kaluli sound world is that of 'The boy who became a *muni* bird' in which the sound of the boy/bird represents social ideas of abandonment; the sentiment of loss is mediated by the bird with the metaphor of loss indicated by the bird sound, emulated in weeping and song (Feld 1990:41). The prominence of birds extends into other areas of social organisation, for example with culinary taboos, which have auditory as well as visual ramifications; if children eat specified birds, then they will not develop proper speech (Feld 1990:62). All of these examples illustrate the organisation of the Kaluli world through sound, with a corresponding prominence on the role of timbre, as well as highlighting the need to have culturally appropriate methodologies, which will enable discussion of salient constructs.

Not only do these studies highlight the significance of timbre in the musical system of a culture from the emic perspective of that culture, they also indicate how timbral taxonomies of those systems can be extracted and viewed as a means for the organisation of timbre. Developing a systemic means of assessing and organising timbre was of particular significance in Lomax's (1976) cantometrics system, which is based on category ordering of vocal performance. It covers the many aspects of performance practice that lie outside the pitch, rhythm and harmony triumvirate of staff notation, but which may be extremely significant in the musical tradition, such as the privileged role occupied by shakuhachi timbre in practice and epistemology.

Rather than focusing on the corpus of a genre, Lomax attempted to categorise the style of song performance, with the aim of eliciting common patterns of vocalisation and coordination with performance expectations across cultures, so as to define song styles while preserving the integrity of the cultural traditions (Lomax 1976:9–21). This approach allowed categories of performance outside the classical stratum to be recognised on an equitable basis, incorporated and rated on a scale. Thirteen groups were identified: differentiation/ ornamentation/ orchestral organisation/ vocal cohesiveness/ choral organization/ noise-tension level/ energy level/ rhythm/ melody/ phrase length/ melodic range/ the position of the final note/ the polyphonic type. Nine of these were further divided into subcategories, including ornamentation, noise-tension level and energy level (Lomax 1976:20):

- Ornamentation: glottal ornament/ tremolo/ glissando/ melisma/ embellishment.
- Noise-tension level: level of nasality/ level of rasp/ level of vocal narrowness.
- Energy level: level of volume/ Level of emphasis/ vocal pitch (register).

Mention should also be made of several subcategories relevant to timbre in the following categories:

- Orchestral organization: the level of orchestral blend
- Vocal cohesiveness: the tonal blend of the vocal group

Ten songs each from different cultures were tested and rated against these categories, and from the results, Lomax contrasts the two extremes, of African Gatherer and Urban East Asia. The East Asian profile generated from this included solo, individualized performance, which typically featured irregular metre, complex melodies, ornamentation, "noisy-voiced" attributes (Lomax 1976:19).

Although Lomax's work has shortcomings and invites such criticisms as inferring the general from a specific small sample, overall his work was a comprehensive attempt to devise a systematic analytical toolkit for performance features, which might otherwise be overlooked (Nettl 2005:100–101). Furthermore, his attempts

to extend musical boundaries and thus recognise that different cultures characterise and organise their musics in different ways, with different musical attributes privileged, are central to ethnomusicology's concern with accommodating and giving a voice to diverse musical cultures from their own point of view.

Whilst such studies of relative timbral values illustrate the many different ways in which timbre may be constructed, valued, and expressed in a culture, the translation of those timbral gestures to another musical culture may require an additional framework in which to locate that voice. An emerging field in recent years has been that of gestural analysis. Although musical gestures of one sort or another have long been recognised, a recent paradigm shift of gestural analysis has seen a wealth of research with an emphasis on the physiological processes of music–making.

Such physical processes are used in improvisation and performance, as indicators to other performers, as personal expression, connections with the audience, or all of these (Gritten and King 2006, 2011, Godøy and Leman 2010), and underpinning these studies have been re-evaluations of the definition of a gesture, not only as a physical process, but also as an embodiment of musical knowledge (Gillan 2013, Leman 2010), as a musical gesture per se (Hatten 2006, Ben-Tal 2012, Monelle 2010), and as a musical gesture of timbre (Halmrast et al. 2011). There has also been an increasing cross–over between the fields of gesture and cognition with ethnomusicology (Glillan 2013, Leman 2010, Fatone et al. 2010).

1.4.6 Timbral and cross-cultural approaches in gestural studies

While many recent studies in gestural analysis have concentrated on western music practices, such as art music or pop, Leman's study of embodied meaning in the movements of *guqin* players (2010), and Gillan's analysis (2013) of the embodiment of Okinawan music in the 'finger-dances' of its *sanshin* performers are recent examples of the long–standing concern with gesture in ethnomusicology such as that seen in Baily's (1977) study of the Afghani dutar, in which Baily illustrated the connection between organology and the evolutions of musical style.

As well as representing an addition to cross-cultural gestural studies, Gillan's (2013) research on the musical knowledge embodied as finger–dancing in the Okinawan *sanshin* tradition highlights the ways in which gestures not only convey musical knowledge but *are* musical knowledge in the learning, recall, and performance of a work.

Meanwhile, Fatone, Clayton, Leante and Rahmain's (2010:203-220) study targets gesture within a cross-cultural paradigm, with reference to the music of North India and to bagpipe music in Canada. Although their study elicits cultural distinctions in the function and form of gestures, the gestures in question, like many gestural studies in this field, are primarily concerned with the gestures of pitch and rhythm rather than timbre. Furthermore, whilst there is a rich vein of gestural research in ethnomusicology, timbral gestures have received less attention.

One exception is Yung's (1984) study on the tablature and notations systems of the Chinese *qin* in relation to performance style, which have shed some insight into the gestures of timbre in performance, and do so from the perspective of another musical culture. While De Vale's (1985) study likewise locates sound texture of another culture as central in her survey of Ugandan harp genres, she does so in the context of proposing a general graphic notation system for all aspects of performance in a broad swathe of performance styles, rather than eliciting individual textural techniques within the music. Nevertheless, her approach recognises texture as a fundamental component in performance and suggests a means for representing it.

While Halmrast, Guettler, Bader and Godøy (2010:183–211) do investigate the relationship between physical gesture and timbre, they do so primarily with reference to western instruments and electronic instruments. They propose a model for the analysis of timbral gestures that can be used (in theory) for any instrument. This model rests upon the division of physical actions producing distinct timbre into three basic categories: sustained sounds, impulsive sounds (discontinuous sounds), and iterative sounds (Halmrast et al. 2010:194),

categories derived from the acoustic knowledge that note onset is significant in determining timbre, and our perception of it. Sustained sounds are those produced from a sound held or maintained for a long period, while impulsive sounds are those which result from a discontinuous action and have limited decay, such as plucking a string or striking a drum. Iterative sounds are repeated sounds such as a drum roll or a crescendo on a piano, which become a sustained sound with a change in dynamics and timbre.

Whilst this model presents some interesting possibilities, there are limitations in its application. Firstly, application of the model is contingent upon real–time, live performance, or a visual record of such; it is not feasible from a score and recording. Secondly, it is not clear how such an approach would benefit an analysis of timbral signification in a musical work. Frank Denyer's *The Tender Sadness of Tyrants as they Dance* (1991) was written for two flutes, a bass flute and shakuhachi which play together throughout, often in unison or canon. Indeed part of the compositional ideal is blurring distinctions between respective conventional timbral performance practices. In this context, identifying the compositional sounds as iterative, sustained, or impulsive would not aid a musical analysis of the timbral whole, as much of the musical significance lies in timbral distinctions that occur within the parameters of a single sustained tone and in the relationships between these various sustained tones rather than between the instrument voices.

The musical significance of much shakuhachi timbre often lies in its transformation, either within the note or in the relationship of one tone to its surrounding tones. While Halmrast's et al. (2010:206–207) model suggests that iterative tones can create the effect of sustained tones, it is unclear how the musical significance of timbral transformation within a tone, such as that from a breathy over–blow of shakuhachi *muraiki* to a less inharmonic tone, could be represented within a straightforward demarcation of 'sustained'. Therein lies a problem with this system in that the gestural categories are predicated around note onset, whereas the musical significance of timbre in a shakuhachi tone often lies in the transformations that occur *throughout* its temporal envelope.

In addition, while it may be possible to 'see' the timbral transformation of a bow from iterative to sustained when being drawn across a string, this is not the case with an alteration of mouth shape behind an embouchure, although it may be possible to measure such. Nonetheless, their system raises intriguing possibilities for future research. A possible application of these ideas in cross-cultural composition might be through amodality posited by Arnie Cox (2010:50–55), in which he postulates that the cross–modal (from one instrument to another) transfer of a gesture lies in a spatial-motor-auditory comprehension of a gesture by a second musician on a different instrument, who is able to reproduce that gestural effect, with its corresponding affect. An obvious example of such amodal mimesis being used to drive the momentum in a musical work is in the gestural echoing of one instrument to another. As such Cox's ideas inform the creation of communication between two instruments in the shared musical space of cross-cultural work.

All of these gestural studies share an approach of physical gesture in music as a source of research, however this is not the only interpretation of gesture. Gesture can also refer to figures of sound with signification. The meaningfulness of such a gesture is much debated through a variety of approaches such as the semiotic view of Kühl (2010), or the Saussurian constructions of Monelle (2010). In a cross-cultural work, considering gestural meaningfulness is a dangerous game, although Uno-Everett's (2002:125–149) analysis of gestural significance in Takemitsu's *November Steps* (1967) and *Autumn* (1973) is an insightful addition to the field, albeit one without detailed analysis of the gestures used by Japanese traditional instruments (the shakuhachi and the biwa lute) in the composition.

Uno-Everett's research also reminds us of the need to define the musical parameters of the gestures used in all the cultures represented in a composition, given that her emphasis on individual gestures is focused around the music that she knows (western art music) rather than the gestures of the Japanese instruments, with which she is unfamiliar. While her attention to the gestural detail of the shakuhachi and biwa may be lacking, her overall method of mapping the gestures is concise and easy to use. Her overview covers the full twenty

minutes of November Steps and works well in presenting the gestural relationships between the multifarious orchestral voices (Uno Everett 2002:132). With an orchestra, it is easier to gain mileage out of different voices repeating a gesture; it is less easy to present a summarised overview of such gestures when the number of instruments is very few. However, as her basic approach for the mapping and representation of gestures is straightforward to construct and read, I have used it as the basis for my gestural representation in each of the three musical works analysed.

Uno-Everett's lack of familiarity with the Japanese music traditions of the shakuhachi and biwa highlights the importance of an emic familiarity with the traditions in a cross-cultural analysis, first and foremost so they are able to identify salient musical features as such and understand their role and significance in the musical tradition. Although the analyst may have this familiarity, it is not always obvious how these can be denoted, never mind analysed, in the musical system of the other tradition if there is no appropriate framework to use, as is often the case with shakuhachi timbre in a western environment.

1.4.7 Framing gestures in a discursive paradigm: a cross-cultural timbral model

In considering shakuhachi techniques as 'gestures', we must first consider how such a gesture can be defined. Hatten's classic definition of gesture as "*any energetic shaping through time that may be interpreted as significant*" (2006:1) is certainly a useful starting point for considering what a shakuhachi gesture might or might not be, however this definition, whilst articulating the function of a gesture does not offer many practical constraints on the boundaries of a gesture. Ben-Tal (2012) postulates a definition of physical and musical gestures that may help to refine this problem:

> An important characteristic of physical gestures is that they are short, unified motions with clearly understood meaning or intention (at least within the context they are used). Similarly the prototypical musical gestures would refer to short, self-contained, sonic units that are perceived to have a clear emotional or conceptual signification. We can refer to these

> as *expressive unit gestures*, to distinguish this narrower use from others. (Ben-Tal 2012:251)

His denotation of an *expressive unit* does suggest an addition to the music rather than an intrinsic element, but this nevertheless facilitates discussion of many of the distinct performance techniques that, moreover, are often fundamental carriers of musical form, affect, and indeed effect, but cannot be described as a note or rhythmical unit.

Since we cannot describe these gestures as notes or rhythms, this also rules out further use of terminology and frameworks in the musicological hierarchy such as modulation, which we might use to describe the development of a musical work. However, a possible alternative to such a melodically based exposition comes in the work of Tsang (2002) and of McAdams, Depalle, and Clarke (2004). In Tsang's (2002:35–36) concept of timbral rhythm, he defines timbral rhythm as "tension and relaxation", where the timbres are dissonant and resolve into consonance, for example when foreground and background sound merge in an orchestra. The movement of this tension and relaxation at phrasal level is the momentum of the timbral rhythm. Whilst Tsang is referring specifically to timbre, shakuhachi timbre is often inseparable from pitch or microtonality, thus it is more effective to frame this focus on timbral rhythm as gestural rhythm, which enables a focus on timbre within a less restrictive framework.

In addition, Tsang's (2002:35–36) definition of his timbral tension and relaxation is timbral dissonance resolving into consonance. Consonance and dissonance seem a little restrictive as means of achieving timbral tension and relaxation. If one is locating this within the auspices of a western orchestra, it is a reasonable assumption. If one is locating timbral rhythm elsewhere such as in another culture and/or with fewer instruments tension and relaxation may take a different form.

Therefore, I take the idea of timbral tension and relaxation with a more flexible application, and consider timbral rhythm as the intensity, quantity, and speed of timbral movement within a phrase, with reference to the amount of gestures, their dissemination throughout the phrase, and the type of gesture used with reference

to the musical significance of the effect. As such, it then becomes more expedient to reframe timbral rhythms as gestural rhythms, which have a broader scope in which to house timbral variation. These gestural rhythms are a structure by which gestural movement within individual phrases can be framed. The gestural rhythm of these individual phrases can then be located within overall structure of the complete work using McAdams, Depalle and Clarke's (2004:157) proposal of timbral trajectory. McAdams et al. (2004:157) explain timbral trajectory as the timbral combination of different instruments, which may have a timbral goal and structure within the music. Again, this can be reconsidered as a gestural trajectory, which happens to emphasize timbre, and indicates the overall gestural structure of the work.

Although we now have a means by which the individual timbral gesture can be denoted and the structure for considering its deployment at phrasal and overall levels, we still do not have a framework for discussing the movement and transformation of those gestures within the music. To some extent, existing parameters may be used; terminology from the home tradition of the instruments can be, and is, used in this study to define the movement of the music, which is immanent to it (Echard 2006:75–90). Likewise, the composer may specify techniques in the work.

However this is not always enough, particularly when the gestures have been used in an unfamiliar combination. Here it is useful consider Nettl's (2005:110) approach when he was asked to organise and extrapolate the structural principles of the music from the surviving collection of recordings of songs by Ishi, the last member of the Yahi, an American Indian tribe. Whilst the songs initially seemed simple, closer examination revealed that the structural principle underpinning many of the songs was the statement of the main idea which was repeated with variation. The variations included expansion or contraction of the original idea, inversion or extension, internal repetition, substitution of one pitch for another in a cadential position (Nettl 2005:110).

Whilst such terms do not seem far from those traditionally employed in an analysis of a music score to describe for example, a melodic development through an inversion of the motif, such terminology facilitates a subtle shift away from the hegemony of many analytic narratives in western art music, and thus the musical priorities of the culture of western art music. As such they are a useful approach in a cross-cultural work when describing how gestures are used, although such terms will be more relevant to some gestures than to others, such as melodic gestures. They could also potentially be used to elicit amodal mimesis, when the effect of one instrument is carried to another, or rather the musician transfers the action and mimics its force on a different instrument (Cox 2006:50–55). The gesture of this amodal mimesis could be extended, enacted with pitch substitution, or could even be inverted, or a combination thereof.

In addition, Hatten's construction of the motif as a thematic gesture provides a useful musicological framework for the musical trajectory of the gestures: "A gesture becomes *thematic* when it is (a) *foregrounded as significant*, thereby gaining *identity* as a potential thematic entity, and then (b) *used consistently*, typically as the *subject of a musical discourse*" (Hatten 2006:8). His postulation opens up the inclusion of articulatory gestures, such as timbral and microtonal motifs, which might otherwise be considered an accessory, as structural in their contribution to an expressive (gestural) trajectory. Essentially, this approach enables Nettl's (2005:110) idea of melodic variation to be re-positioned as gestural variation, which can expand, contract, and so on. Nettl also highlights progressive variation and close temporality as defining features of the Yahi songs; althougth these are useful parameters to consider, I would not view them as absolute within a different musical context.

1.4.8 Summary

From these ethnomusicological and gestural approaches in a musicological context, and informed by studies of timbre in other fields, I have constructed a model for the analysis of timbral gestures in cross-cultural shakuhachi composition, which is applied to three compositions in Chapters 5, 6, and 7. The emic perspective of shakuhachi practices, repertoire, and musically privileged timbre, derived from

ethmomusicological approaches (Feld 1982, Stobart 1996, Lomax 1976), enables shakuhachi techniques to be identified and their musical significance considered. Framing these techniques as gestures enables an analysis with a discursive paradigm which can be applied to the context of western art music and musicology, a context that conventionally does not have much space for timbre.

From the diverse field of gesture studies, I have drawn on the ideas of Hatten (2006:8) and Ben-Tal (2012:251) to define the timbral gesture. To frame a musical discussion of the movement of those gestures within a work, I have used Hatten's (2006:1, 8), Cox's (2006:50–55), and Nettl's (2005:110) perspectives, and the musicological studies of McAdams et al. (2004:257–196), Tsang (2002:35–36) to provide a formal structure of gestural rhythm (phrasal) and gestural trajectory of the overall work. For the presentation of these analyses I have been guided by Uno Everett's (2002:132, 150) model of a gestural overview.

Whilst this overview of timbral analysis and proposal of a musicological model for timbre comprises a substantial body of work, it is not sole focus of analysis in this thesis, as I am also surveying the international compositional cohort who have written this music. In Chapter 3, I undertake two surveys of a large body of shakuhachi composers in terms of nationality and instrumentation, using databases that I have constructed in Microsoft Excel 2008 and organised with reference to nationality and instrumentation. Such large-scale surveys are less common in ethnomusicology for reasons discussed below.[30]

While assigning nationality in the database was straightforward, organising the diverse collection of instrumentation was more problematic. Here I turned to the well-known organological taxonomy of Hornbostel and Sachs (1961 [1914]) for ideas, although their approach proved problematic. To have fully utilised their system with its focus on instrumental design would have obscured my timbral focus, as timbre is often more immediately realised by performance practice rather than instrument design. As a result I developed a taxonomy incorporating

[30] See the file "Shakuhachi composition database.xlsx" on CD 1.

elements of Hornbostal and Sach's system, western art orchestral groupings, and nationality, which is further discussed in Chapter 3.

1.4.9 Statistical analysis, perceptual correlates, and ethnomusicology

> Statistics deals largely with replication, whereas music deals with particular cases which are often works of art, and these points of view may well seem contradictory. A particular case, such as an outlier, may occasionally interest a statistician who is otherwise concerned with general tendencies, but in music particular cases are everything. Changing a single note by the smallest amount (say C to C sharp) may have little statistical but enormous musical effect, for by its nature a musical masterpiece is an organic whole, not just a series of note-decisions. On the face of it, therefore, statistics and music are not likely to mix well. (Nettheim 1997:94–106)[31]

Whilst Nettheim addresses musicology concerned with western art music, he adroitly summarises the essential problem of the general and the specific, which is an issue central to much ethnomusicology writing. Nettl (2005:92–93) attests to this in his consideration of repertoire and analysis in which he assesses the history, contradictions, and attractions of large-scale modelling over individual analytical views of and cultural perspectives of the emic insider. Large-scale statistical approaches and surveys are uncommon in contemporary ethnomusicology, although they were more prevalent in the early days of ethnomusicology, with Hornbostal's universalist approach to melodic modelling being particularly influential. Hornbostal's approach was subsequently modified by Herzog with an emphasis on such a survey as a necessary accompaniment to the analysis of individual songs, and was the approach subsequently undertaken by Freeman and Merriam (1956), amongst others (Nettl 2005:95–96).

As Nettl notes, large-scale surveys such as those of Herzog and of his colleague Kolinski have tended to target melodic style, as befitting their western art music background, whilst being tentative in their approach to rhythm (Nettl 2005:98–99), neither of which are the focus of this study. This bias is also evident in Nettheim's

[31] Although Nettheim uploaded his paper to his website, the online version does not have page numbers: http://nettheim.com/publications/statistics-in-musicology/statistics-in-musicology.html (23 Jul. 2015).

survey of statistical use in musicology, in which the studies he presents routinely focus on the notes, via pitch, intervallic relations, melody, harmony, and repetitions of all of these (Nettheim 1997:94–106).

Alan Lomax attempted to redress the balance of a melodic bias through his aforementioned cantometrics system, in which he sought to classify a wider range of musical features usually considered performance practice, including timbre and microtonality, and consequently set apart from fundamental musical structures. Although his aims were laudable, his approach extrapolated generalities from small studies, thereby undermining the results (Nettl 2005:100–101). Nevertheless, his study was influential in terms of proposing a model by which wider musical performance techniques could be scrutinised. Notwithstanding this contribution, large-scale universalist surveys fell out of favour. Further studies of features such as timbre and microtonality emerged through ethnographic studies of individual musical traditions, in which the emic perspective of the culture to which that music belongs came to the fore, such as the aforementioned studies of Feld (1982) and Stobart (1996).[32]

Nevertheless, in the context of this study a survey of a large cohort of composers was warranted for several reasons. In 1994, several articles were published presenting compilations of hundreds of composers who had used the shakuhachi (Benitez and Matsushita 1994, Samuelson 1994, Iwamoto 1994), with basic details of the composer, composition, and instrumentation. One list presented Japanese composers (Benitez and Matsushita 1994), another American composers (Samuelson 1994), and the third, European (Iwamoto 1994). Each list was presented in a different format, with varying numbers of composers, and only covering the period from the post-war era to the 1990s. Here was a large amount of data inconsistently presented and thus difficult to use or compare in any meaningful way, and with subsequent composers not represented, nor any composer from the post-war era onwards who was based elsewhere in the world.

[32] See Windsor (2004:197–222) for an alternative approach to statistics in musical research, targeting perception and performance.

A database seemed the logical way to combine these resources into one place with consistent presentation, which allowed for easier access to the information and could facilitate meaningful comparison, and could also include contemporary composers and works. A significant distinction between this survey and the surveys discussed above is that this is not a survey of musicological features within a composition. It is a compilation of basic biographical details of composers and the title, duration, and instrumentation of any shakuhachi work the composer has written. Scores or recordings are not included, although the data can be used to consider the international reach of the shakuhachi as a compositional tool, and to consider the instrumentation used in combination with the shakuhachi, with the timbral percepts of Grey (1977) as a reference point.

Grey's (1977:1270–1277) seminal study of the timbral similarity and dissimilarity of orchestral instruments has proven useful in considering instrumental combinations of the shakuhachi and orchestral instruments discussed in Chapter 3. In his study, very short fragments of orchestral instrument sounds were played to musically trained participants, with as many of the acoustic variables controlled as possible, including pitch, loudness, and duration. The participants were then asked to rate the similarity on a numerical scale of 1–10 very dissimilar, 11–20 average similarity, 21–30 very similar, and the results were presented using multidimensional scaling with three analyses of acoustic features represented in two dimensions (ibid.).

Results indicated that most woodwinds are at one extreme; the upper harmonics tend to enter, reach their maxima and exit in close alignment, and the overall spectrum does not fluctuate much whilst all the harmonics are present. Brass instruments and the bassoon, strings and the flute are at the other extreme with harmonics that lack synchronicity, and instead have tapered entrances and exits, with correspondingly higher amounts of spectral energy (Grey: 1977:1273). Many of the instruments, including flute and strings, displayed inharmonic energy during the attack phase, with a high frequency and low amplitude, which would correlate with the many attack types of the shakuhachi, which exhibit managed degrees of inharmonicity.

Grey's (1977:1274) findings indicated that one dimension of the representation related to spectral energy distribution, whilst the other two represented temporal patterns, such as the attack energy, spectral fluctuation and synchronicity in the upper harmonics. Grey refers the spectral energy distribution findings back to instrumental families, however he does not denote the cultural specificity of the overall set. The posited relationship between spectral energy findings, and instrumental families is based on a western classical orchestral taxonomy, which implies a universality that may be misleading.

From this point of view, an assessment of timbral similarity according to the performance practices of instruments organised by the Hornbostel–Sachs taxonomy (1961 [1914]) might be more useful, although the construction and sound production of some instruments would be inimical to the experimental controls used in this context. It is likely that Grey's findings of the flute as an exception to wind instrument family clustering could be applicable to shakuhachi. The findings of the study indicated that, for spectral energy clustering in the similarity tests, the flute clustered with the strings. Grey suggests that this may be because:

> …certain physical factors may override the tendency for instruments to cluster by family. The factors suggested here, are the articulatory components of tone [sic] which occur in the attack. FL [flute] is overblown, so it has two similarities to the strings: (1) low-amplitude, high-frequency precedent inharmonic energy and (2) nonsynchronicity of onsets along with a high degree of spectral fluctuation through time. (1975:1275)

It is possible that the shakuhachi would be more similar than the flute to strings, in terms of the behaviour of these salient features, but might not be perceived as such; it would be interesting to investigate how the shakuhachi was perceived in this model. Of course the model used here bases its findings on fractional musical sounds, whereas the effects of a shakuhachi are better perceived in a much longer temporal window, as are many of those in the string family. Nonetheless, this provides a perspective with which to consider the instrumental groupings used by

composers, which also informs the gestural analysis in subsequent chapters, particularly with reference to Cox's (2010:50–55) gestural mimesis.

1.5 Conclusion

In this introductory chapter, I hope to have introduced myself, the scope of this study, my approaches and the multifarious literature that has proven so fruitful to my research. We have been introduced to the fields of shakuhachi research and western art music in Japan, from which I have assembled my information on composers and compositions, and to the field of statistics and databases in ethnomusicology, which forms informs my representation of this large cohort. We have also been introduced to the very different fields of timbral research in the sciences, ethnomusicology, and gestural studies, from which I have constructed my gestural approach to the analysis of timbre in individual compositions. From here, we can begin our journey into the world of the shakuhachi and its timbre.

2 The art of making one note interesting: the shakuhachi sound and western art music

The distinctive sound of the end–blown Japanese shakuhachi flute, with its musical privileging of timbre, came to be combined with western art music despite evolving from a very different musical–cultural context with musical parameters some distance from those of the western art domain (Tsukitani[33] et al. 1994:112). Nonetheless, a significant cross-cultural repertoire has emerged from this seemingly incongruous pairing, of which many works explore the remarkable and characteristic timbral tessitura of the instrument. These explorations have, in turn, challenged cultural precepts of privileged musical attributes.

With the importation of western art music into Japan during the westernisation drive of the Meiji era (1868–1912), alongside societal changes in which traditional systems of musical patronage were abolished, shakuhachi players and other musicians looked not only to the preservation of their own tradition using these new western musical tools but also investigated compositions combining the shakuhachi and other *hōgaku* (traditional Japanese musics) instruments with western art instruments. Such works formed the basis of cross-cultural composition and were the first experiments in the combination of the shakuhachi with western art music, although this cross-cultural approach did not flourish until the 1960s (Galliano 2002:27–127, Herd 2008:363–371).

The inception of contemporary cross-cultural composition was driven by western art-trained composers, mostly Japanese, during the openness and experimentalism of the 1960s, of which Tōru Takemitsu's seminal work, *November Steps* (1967), for shakuhachi, biwa (plucked lute), and orchestra remains the best known. Subsequently, the range of shakuhachi and western art compositions has expanded on the national and international stage to encompass a broad spectrum of

[33] Tsukitani, also transliterated as Tukitani.

international composers who have sought, and continue to seek, to capture the distinctive sound of the shakuhachi with a diverse array of musical approaches.

2.1 The evolution of the shakuhachi sound

2.1.1 The instrument

The shakuhachi is a vertical, end–blown bamboo flute played in the traditional music of Japan. Originally associated with mendicant monks of the *Fuke* Buddhist sect as a *hōki* (religious tool) for the enactment of repertoire known as *honkyoku* (core music), the shakuhachi came to be thought of as a *gakki* (musical instrument) used in Japanese secular environments of *sankyoku* (chamber music trio)[34] and *min'yō* (folk music), and later combined with western art music, jazz, pop, and other genres. Of traditional Japanese instruments, the shakuhachi has gained considerable renown to become one of the best known on the international scene (Tsukitani et al. 1994:103).

The instrument is traditionally made from *madake* bamboo and has seven bamboo nodes, including the root. A piece of water buffalo horn (ivory, deer), or artificial ebonite is usually inserted into an area that has been diagonally cut along the seventh node, to form the mouthpiece, and the root of the bamboo is the bell of the instrument. The instrument is traditionally measured in *shaku* and *sun* from which the generic name of the instrument stems; the term shakuhachi is derived from the standard length instrument of one *shaku* (30.3cm) and *hachi* (eight) *sun*, which equates to c.54.5cm with an approximate base pitch of D4 (Iwamoto 1994:13, Tsukitani et al. 1994:113)

Although the 1.8 instrument is the most common length, shakuhachi players use many different lengths ranging from about 1.6 to 3.4 or longer, all of which correspond to different fundamental tones. Whilst length is significant in

[34] Instrumental trio: shamisen (plucked three-stringed lute), koto (thirteen-stringed zither), and the shakuhachi, which superceded the *kokyū* (upright bowed fiddle).

determining base pitch, bore diameter is also important in influencing pitch and in delineating the timbral tessitura (Tsukitani et al. 1994:113). The instruments in the following three photographs (the author's own shakuhachi) are two 1.8 and one 2.0 shakuhachi (the longest one); the 1.8 instruments have a base pitch between D and D♭, while the 2.0 instrument has a base pitch between B and B♭.

The bamboo is curved during manufacture to make it look more natural, as bamboo naturally grows straight (Malm 2000:171), and the red bore of one instrument is *urushi* (lacquer) lining; this is a *jinuri* instrument, whilst the other two are *jinashi* (unlined) (Tsukitani et al. 1994:113–116). Note the size of the embouchure and the angle of the mouthpiece, which are significant determiners in the timbral and microtonal range of the instrument, and the black inlay on the mouthpiece of the *jinuri* instrument, which is representative of the *ryū* (style). There are four holes on the front and one on the back. The holes are spread around the bamboo nodes and on longer instruments the holes may be angled to the sides to facilitate play.

Figure 2.1 Examples of shakuhachi

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Early shakuhachi from T'ang China (eighth century), which survive in the Shōsōin repository in Nara, have six holes; however, the standard contemporary model, which evolved during the seventeenth century, has five holes, as illustrated above. Twentieth-century innovations include seven and nine-holed instruments of which

players and composers have mixed views (Miki 2008:35, Iwamoto 1994:13) and the use of *urushi* (lacquer) to help stabilise the pitch for performance in *sankyoku* and other subsequent ensembles; urushi has also had an impact on the timbre of the instrument (Tsukitani et al. 1994:114).

This lined shakuhachi is known as a *jinuri* (with lacquer) instrument, which was developed during the Meiji (1868–1912) and *Tāisho* (1912–1926) periods for the emerging ensemble repertoire (Day 2011:63) and is the shakuhachi most commonly used today, whether with Japanese or western art instruments in a domestic or international context. Shakuhachi that are not lined with lacquer are known as *jinashi* shakuhachi,[35] have greater timbral variance than the *jinuri* instrument, and are often considered by players to be closer to the Buddhist heritage of the shakuhachi, although these instruments have also come to be used in the secular domain (Day 2009, 2011:62, Keister 2004:99).

Although the natural scale of the shakuhachi is an anhemitonic pentatonic scale, most contemporary instruments are tuned to western equal temperament pitches, whether *jinuri* or *jinashi* instruments; however, a minority of contemporary makers do not tune *jinashi* instruments to equal temperament pitches (Day 2009:143, 2011:62–63, Tsukitani 2008:153, Neptune 1978:106). Shakuhachi notation is tablature for fingering with additional symbolic indicators for time and other techniques, which are a mix of nomenclature and visual indicators. Whilst all shakuhachi tablature derives from Japanese orthographies, the tablature is not standardised across different *ryū* (schools, or styles) of shakuhachi performance, to the extent that *Tozan-ryū* students would *not* automatically be literate in *Kinkō-ryū* tablature.

The principal tablature is derived from *kana*, a syllabary used in written Japanese, and bears no phonetic correlation with shakuhachi playing techniques, unlike the

[35] Other terms e.g. *hocchiku*, *kyotaku*, *fuke* shakuhachi etc. (Day 2011:62) may also be used to describe the instrument. Day credits these alternative names to Tsukitani et al. (1994:108); however, several searches for *hocchiku* and *kyotaku* in Tsukitani's article indicated no use of *hocchiku* and use of the term *kyotaku* is restricted to Yamamoto's article listed in Tsukitani's bibliography.

mnemonics used in other Japanese instrument traditions (Hughes 2000). Some *kanji* (Japanese characters) are used to indicate specific techniques or performance directions, such as register indicators, while temporal indicators include proportional duration of a tone, or units of time based on western bars and note duration. Other techniques, including timbral directions, are represented using verbal indicators such as the physical descriptors for head angle (*kana* terms of *meri* めり and *kari* かり) and visual symbolisation, such as the slashed lines for the blowing technique of *muraiki*:  .[36] These techniques and their representation in notation and tablature are discussed further in Chapter 4.

The sound, and appearance, of the shakuhachi flute is very distinctive and often resonates very strongly with listeners. Arguably the most distinctive quality of the instrument is the use of timbre as a key musical attribute, which is exemplified in the classical *honkyoku* (original music) repertoire.[37] This sound has significance on many levels both in and outside Japan, whether the signification is subtle or overt, or basic or sophisticated, and its signification ranges from its acoustic properties to its extramusical embedded meanings in nature, Japanese culture and Zen Buddhism, particularly the concept of *ichiōn jōbutsu,* discussed further in Chapter 4. The shakuhachi evolved as a part of Zen Buddhist practice so has a primary association with Zen, although Zen Buddhism itself evolved through a syncretic relationship with native Shintō customs and approaches, which have in turn influenced shakuhachi practices.

To think of Buddhism in Japan as a separate category, apart from Shintōism or Confucian beliefs, is to misunderstand the nature of Japanese belief systems and

[36] Example taken from *Hon no shirabe* courtesy of Okuda-sensei and Kiku Day of the *Zensābo-ryū*.

[37] *Honkyoku* from *hon* 本(root, source, origin/ original etc.) and *kyoku* 曲(piece of music, musical composition, melody, tune, song etc.) may be translated in several different ways in accordance with different character readings in Japanese, multiple synonyms available in the destination language, and the language register of specialist musical vocabulary. Translations of *honkyoku* include: original music, core repertoire, and traditional repertoire or music. For the purposes of this study I will use 'original music'. Source: *The Kodansha Kanji Learner's Dictionary* (2001), first edition 1999, editor Jack Halpern.

worldview: "Japanese religion is a blend of at least five major strands: folk religion,[38] religious Taoism, and Confucianism." (Earhart 1982:1). Such syncretism has long been a feature of Japanese belief systems, with doctrines and practices overlapping and combining, and daily lay practices experienced as a unified worldview, with involvement in all of these strands at individually differing levels of participation and religiosity (Earhart 1982:3–4, Totman 2005:191).

In terms of music and other cultural expressions, key structural and aesthetic qualities that have emerged out of the confluence of Zen and Shintō are texture/timbre, imperfection, and impermanence, further discussed in Chapter 4. These concepts have been manifest across different areas of Japanese culture, such as *wabi-sabi* ceramics, as well as in music, where qualities such as rough textures are present in the organology and evocation of *sawari* on the biwa and shamisen,[39] or the *nō* preference for vocal *sabi* (Shimosako 2001:552), and come together in the expression of the shakuhachi.

Rough textures/timbres are an expression of imperfection and to a lesser degree impermanence; such timbres and textures suggest change over time. Although these values are associated with Zen Buddhism, they are difficult to evaluate, particularly in shakuhachi music as a result of core tenets of Zen Buddhism. Zen idealises being-in-the-moment, a concept further explored in Chapter 4. Western–style deductive analysis is inimical to successful practice of this way of being, rendering such analytical approaches difficult, but not impossible, if alternative paradigms are employed.

In the solo shakuhachi *honkyoku* practice, the music exhibits these values and associations of impermanence, imperfection and timbres/textures, through the distinctive sound of the instrument, and the form of the music. Imperfection is manifest through the rough timbres and the instability of the notes, both of which

[38] Earhart's definition of folk religion is of beliefs and practices that exist outside highly organised religions (1982:1).

[39] (Takemitsu 1995:64–65, Miki 2008:75 & 90–91, Tokita 1996:27–28, Yamada 2008:204, Sakata 1966:152).

are privileged in the musical structure and movement. Impermanence, meanwhile, can be seen in the emergence and decay of the note (the note onset, temporal change, and note offset), and the temporal change is manifest and manipulated by timbral movement and pitch movement. In terms of identifying features of the shakuhachi sound, timbral movement and pitch instability are primary signifiers from which the listener draws associations of temporality, temples, nature and so on, relative to their cultural background (Blasdel 1984; Matthews 2004:335, 341; Neptune 1978:102–103; Tsukitani 1994, Nakamata 1994:95–101).

Of impermanence, instability of pitch and timbre, and timbre itself, arguably the most distinctive attribute is timbre. Instability is part of timbre and pitch, and is not an exclusive feature of the shakuhachi. Microtonal pitch movement is possible on many similar flutes, and is a desired component in many musics, such as North Indian classical music (Ruckert 2004:69, Capwell 1986:787). However, the extent of the shakuhachi*'s* large timbral range is much less common, as is the use of timbre as a privileged, core musical attribute in music structure, movement and aesthetics. As mentioned above, it is possible to understand and analyse timbre as a structural and/or expressive unit in a musical work. Gestural analysis offers a potential means by which a timbral technique can be denoted as a bound expressive unit (Ben-Tal 2012:251), and the musical use of that unit tracked through phrasal rhythm and overall trajectory as outlined in Chapter 1.

2.1.2 The performance context

Today, the shakuhachi is used as an instrument in many varied national and international contexts. Both inside and outside Japan, the shakuhachi is used in traditional music, classical music and other genres such as film music, pop, and jazz; its performers, audiences, and associated composers comprise Japanese and non-Japanese demographics. With such diverse performing contexts, the meanings and significance associated with the instrument and its music are similarly diverse. For some, its Buddhist heritage is more explicit, whilst for others such signification is implicit; however, in all cases the Buddhist/Shintō/Japanese values outlined above have informed the evolution of the instrument, its music, and musical techniques from its early history in Japan.

Keister (2008:99-100) considers the contemporary shakuhachi to have dual roles: as a *hōki* (religious tool) for the meditational practice of Zen Buddhism, or as a *gakki* (musical instrument), used in ensemble music in Japan and elsewhere, which he views as unique among Japanese traditional instruments. This dualism has, perhaps, contributed to the success of the shakuhachi in such varied environments. This study focuses on the development of the secular repertoire: the shakuhachi as *gakki*, and the manner in which its heritage has influenced its contemporary combinations with western art instruments.

Although this study focuses on contemporary repertoire of the shakuhachi, in order to understand how its distinctive sound evolved, we first need to consider its historical context. Despite a paucity of sources and varied interpretation, the history of the instrument, summarised below, has been well-established through the efforts of Tsukitani (2008, 1994), Gutzwiller (1974), Takahashi (1990), Malm (1959, 2000), Harich-Schneider (1973), (Lee 1993) and Sanford (1977).

2.2 The history of the shakuhachi

2.2.1 Early days

The early shakuhachi arrived in Japan as part of the *gagaku* (court music) orchestra imported from China during the Nara–Heian era (710-1160 C.E.). These six-holed, end–blown flutes, made of jade and ivory as well as bamboo (Malm 2000:165, Tsukitani 2008:147–8), disappeared from the court music orchestra during the eleventh century; over the next few centuries of Japan's turbulent middle ages, historical record of the instrument is sparse. Toward the end of the Muromachi era (1336–1573 C.E.), early modern shakuhachi appeared in association with the coalescing *Fuke* sect of Zen Buddhism. The sect sought legitimisation during the early Tokugawa era (1603–1767)[40] of the seventeenth century, via edicts presented to the shogunal government (Sanford 1977:420, Lee 1993, Malm 2000:165–171). Incorporated in these regulations were details of

[40] Also known as the Edo period.

official possessions, including shakuhachi, which were presented to new *komusō* monks during initiation and conferred temple affiliation and legitimacy. In addition, the regulations also restricted the use of the shakuhachi to members of the order and membership of the order was restricted to *samurai*:

> No one is allowed to play the shakuhachi besides a *komusō*. If a samurai desires to play the shakuhachi, he should obtain permission from the main temple. Only samurai are allowed to play shakuhachi and become *komusō*. (Lee 1993:119)

As well as these socio-political developments, the organology of the instrument was also undergoing a transformation. Several varieties of shakuhachi are known to have existed: the *tempuku*, a very short instrument associated with the former *Satsuma* domain[41] on Kyūshū, and the *hitoyogiri*, a short end–blown bamboo flute popular between the twelfth and seventeenth centuries (Lee 1993:61–2, Tsukitani 2008:148–149). The *hitoyogiri* was used for short solo performance, song accompaniment, and ensemble performances with the koto and shamisen; these ensembles were a precursor to *sankyoku*. The decline of the *hitoyogiri* is contiguous with the rise of the *fuk*e shakuhachi, although the causes of its decline remain conjectural (Tsukitani 1994:107, Sanford 1977:428, Lee 1993:109).

Thus itinerant monks played tunes on the shakuhachi to beg for alms, signal temple affiliation (Takahashi 1990:113), and to engage in meditational practices. From this context a body of solo, unmetered music emerged, which constitutes the core repertoire of the shakuhachi and is known as *honkyoku*. Given its meditational influences, the process of producing the sound was more important than the end production of sound and was not undertaken with a goal of musical performance (Tsukitani et al. 1994:111), since the shakuhachi was not considered as a musical instrument (*gakki*) but rather as a meditational tool (*hōki*).

As time went on, the public conduct of the mendicant monks deteriorated and they even attracted espionage claims, although this claim remains speculative and controversial (Lee 1993:135, Gutzwiller 1974:18, Blasdel 1988:117–118). In an

[41] Now Kagoshima Prefecture, Kyūshū.

attempt to control the worsening behaviour of the *komusō*, in 1847 an early edict of the sect was officially claimed as a forgery and revoked (Takahashi 1990:120–121, Lee 1993:136, Gutzweiller 1974:8), effectively abolishing official recognition of the sect, which also abrogated the class requirement for entry. While this reduced the *Fukeshū* to a standard religious sect, it also increased the flexibility of shakuhachi practices, as official restrictions on performers and performance were repealed.

If the change in policy increased the movement and opportunities for musicians, it also marked a change to the status of professional musician and increased economic insecurity at a time of nationwide uncertainty and insurgency, as shogunate domestic rule and international isolationism weakened (Totman 2005:285–314, Ebrey 2006:412–430, Gordon 2003:61–114), culminating in the collapse of the shogunate and the restoration of the Meiji emperor in 1868. Under the new rule, a governing faction promoted a new international policy of engagement, and radical societal re-organisation, moves that would have a lasting impact on the shakuhachi.

The decline of the *Fuke* sect is contiguous with the rise of the shakuhachi in a secular environment, either through performance of its core temple repertoire or, as Sanford (1977:429) suggests, as a result of the *fukiawase* subsidiary shakuhachi schools, which had been established by Kinko Kurosawa (1710–70) in 1768. Kinko Kurosawa is a seminal figure in shakuhachi history, and the progenitor of the *Kinko* lineage, one of the most popular schools today (Blasdel 1988:115–129, Weisgarber 1968, Sanford 1977:429–434)[42]. During his *komusō* mendicancy he travelled widely, collecting and codifying a corpus of shakuhachi pieces that existed in temple repertoires (Takahashi 1990:116); these became widely accepted *honkyoku*.

Shortly before his death, Kinko was given the opportunity to establish subsidiary schools, *fukiawase*, which Sanford suggests was driven by a need to equip

[42] Kinko Kurosawa is known by his forename, Kinko.

shakuhachi-playing *komusō* with basic musical competencies (Sanford 1977:429, Lee 1993:143). Although these schools might have been established solely for *komusō* training, they rapidly expanded with non-*Fukeshū* students drawn from the commons, a state of affairs deplored by the authorities (Takahashi 1990:115-6, Sanford ibid., Lee 1993:142). Aside from the *fukiawase*, Lee indicates further likely instances of secular shakuhachi performance, in ensemble combinations with shamisen, koto, and drums, which may have included folk dance accompaniment, and early *sankyoku* ensembles (Lee 1993:140; Malm 1975:148, Blasdel 1988:117–118), suggesting that the enforcement of the *Fuke* prohibition of secular performance was not rigid.

2.2.2 New directions

The first significant impact of the new Meiji regime on the shakuhachi and other musical traditions was the abolition of guilds and religious sects such as that of the *fuke* shakuhachi in 1871. This resulted in the revocation of the *Fukeshū* stipend and other privileges and they now had to seek a new means of making a living in the brave new world of the Meiji era. However, the revocation of the guilds also brought opportunities for establishment of new *ryū*, such as the *Tozan-ryū*, *Chikuhō-ryū*, and *Ueda-ryū* (Takahashi 1990, Tsukitani 2008:160–164, Gutzwiller 1974).[43] These schools emerged during the early twentieth century from a confluence of *komusō* practitioners with the existing secular *gaikyoku* (outside music) tradition of *sankyoku* music played in the *Kinkō-ryū*.[44]

New instruments were also tried, such as the *ōkuraro*, in which a shakuhachi mouthpiece was combined with a Boehm flute key system, giving the wide timbral and dynamic range of the shakuhachi with a chromatic scale. However, as it was introduced in the same year as the Great Kantō Earthquake of 1923 and was prohibitively expensive, it didn't last (Tsukitani 2008:154). Aside from such

[43] Some schools are known by the forename of the founder (*Kinko-ryū*), while others are known by the surname (*Ueda-ryū*).

[44] The shakuhachi tradition tracing its heritage to Kinko Kurosawa (1710–1770) who established the fukiawase schools and collected the musical corpus that became shakuhachi *honkyoku* (Weisgarber 1968:314–315, Blasdel 1988:116, Sanford 1977:429–431).

organological experiments, new *honkyoku* and *gaikyoku* works were composed, new notation techniques were developed, new schools were established, and new self-teaching books were published. At the forefront of the developments was Tozan Nakao, the founder of the *Tozan-ryū*, one of the largest and most international schools today, whose approach did much to increase access to the instrument and helped to further establish the shakuhachi as a *gakki* rather than a *hōki* (Takahashi 1990).

Tozan Nakao (1876–1956) was born into a musical family in Osaka; his mother was a *jiuta* (shamisen and song), *sankyoku* trio, and *kokyū* mistress, who often played with the *Meian* shakuhachi master Sōetsu Kondo. In his late teens he studied shakuhachi of the *Meian-ryū* and became an itinerant *komusō* for two years; he left to establish a new shakuhachi school in Osaka, which incorporated modern and western methods with traditional shakuhachi approaches, which he then published in a self-tutoring book (Takahashi 1990:90).[45]

These methods included the development of new, secular repertoire using a notation system which incorporated western approaches to metre, rhythm, and dynamics (Tsukitani 2008:167). Such developments took place amidst performance in the new concert halls and the rapid domestic and international expansion of his school, into Manchuria and Korea. Takahashi (1990:9) posits that Tozan's approach developed out of new concepts and conditions prevalent in early twentieth century Japan, in which a process of artistic secularism was combined with western educational methods and a new economic stimulus.

Despite the westernisation of the Meiji era, an undercurrent of nationalism prevailed and became a more prominent and widely supported ideal from the Taishō era (1912–1926) onwards, with increasing militancy as time went on. During the late nineteenth and early twentieth centuries, Japan had instigated significant overseas colonisation and trade expansion principally in Manchuria, Korea, and Taiwan, which led to wars with the Chinese and Russians, and

[45] Self-help teaching manuals were common at the time (Ebrey 2006:481).

ultimately to Japanese involvement in the World War Two (Gordon 2003:115–138, Ebrey 2006:520–531, Jansen 2000:495–536, Totman 2005:426–448).
Tozan supported Japan's military activities and overseas expansion (Takahashi 1990:195), which was not unusual despite the personal inconvenience caused by conscripted students and controls on performance in Japan. With Japan's instigation of the Pacific War in World War Two (Ebrey 2006:520–521 Totman 2005:426–448, Jansen 2000:576–574, Gordon 203:204–225), the government attempted to place greater curbs upon cultural activity, particularly western-influenced activities, but their success in implementing these controls was variable. The economic and social aftermath of the war had a significant effect on Japanese cultural life, leading to new expressions of Japanese identity in music, and a re-evaluation of Japanese traditions such as the shakuhachi (Totman 2005:517–544, Tsukitani 2008:162–163).

2.3 The introduction of western art music to Japan

2.3.1 Early encounters (1549–1867)

Although western art music was widely introduced to Japan during the late nineteenth century, it was not the first time that Japan had been exposed to western musical traditions. The earliest recorded instance of western music in Japan occurred during Japan's brief encounter with the evangelising Catholicism of the counter-reformation, which was largely propagated in Asia by the Jesuits (MacCulloch 2009:707, Harich-Schneider 1973:436–493). This brief encounter emerged during a short-lived epoch of trade with western European powers from the mid-sixteenth century to the early decades of the seventeenth century when the proselytising Catholic religions were banished, European and much other external trade was tightly controlled, and Japan entered the isolationist Edo period (Gordon 2003:10–19, Totman 2005:223, Jansen 2000:75–91, Earhart: 1982:117).[46] These events may seem distant from contemporary shakuhachi composition, but a plainchant used by the Jesuits in Japan, *O Gloriosa Domina*, has

[46] The restrictions were aimed at westerners rather than at China and Korea (Totman 2005:223, Jansen 2000:75–91).

provided the basis for a contemporary musical commemoration of these historical contacts, including shakuhachi interpretations of the chant. This contemporary shakuhachi experimentation with a western plainchant is explored further in Chapter 5.

2.3.2 The formative years (1868–1945)

Whilst Japan was officially pursuing an isolationist policy during the Edo period (1603–1867), in practice outside influences did permeate Japanese society, usually through the auspices of *Rangyoku*, 'Dutch Studies', via the small Dutch trading enclave on Dejima in Nagasaki harbour (McCargo 2004:16). As international barriers and internal shogunal power weakened during the nineteenth century, more external influences began to arrive, notably in the form of military bands accompanying the gun-running trade in Satsuma (Burt 2001:9); the adoption of music as an aid to militaristic development in Satsuma was not unprecedented with the use of the *tempuku* and the adapted biwa for military training in the early 1600s.

With the instigation of the socio-political upheaval and westernisation drive of the Meiji Restoration (1868–1912), came the large-scale importation of western art music and musical ideas. Wholesale societal changes were implemented under the Meiji government to transform Japan from an agrarian society to a modern industrial, colonial, economic power, with centralised government and national educational systems (Jansen 2000:334, Gordon 2003:78–79). The new educational model included the introduction of western art music as part of a wider programme of the importation of western methods, ideas, and pedagogy. Music was considered an important conduit for understanding western culture, and for the evolution of a new national Japanese music, with such adoption and adaptation a continuation of a long tradition of borrowing from China and Korea (Herd: 2008:364).

In pursuit of this musical ideal, Shūji Izawa (1851–1917), the architect of the first national music curriculum,[47] advocated a musical amalgamation of the best of the east and the west (Eppstein 1983:4). This ideal was to inform much subsequent cross-cultural experiments and approaches, against the setting of the Japanese-western dialectic (Burt 2001:6–8). New compositions were to be written that combined 'the best' of both traditions, with compromises negotiated between similarities and dissimilarities between the traditions. Students were to be trained to develop this new tradition and the new music introduced into the national curriculum.

At the same time, the first musical educational programme in higher education in Tokyo's first higher educational institution was established under Luther Whiting Mason. Their programme imported western art music and musical pedagogy to the first generation of composers under this new roof, whose early cross-cultural experiments with Izawa's ideal of an east–west blend had mixed success (Herd 2008:365), but which nonetheless laid the foundations for subsequent cross-cultural engagement.

During the early twentieth century, there was considerable debate over the effects of importing western art music as the gulf between western art music and Japanese music was considerable. The aesthetic and philosophical principles, structures, and means of expression of meaning and value in the music were very different to those of Europe. Some of these early Japanese composers were dependent on rote imitation of earlier western styles, while others chose to experiment more with contemporary western compositional approaches (Galliano 2008:34, Herd 2008:365).

Western art music, particularly from Germany, France, and Russia, was perceived as a medium through which western ideas and outlooks could be accessed, and as a putative model for the evolution of a national Japanese music. This active promotion of western musical styles was the product of a more open Japanese

[47] *Ongaku torishirabe-ni tsuke mikomi-shō* (Plan regarding Music Investigation [sic], 1879) Eppstein (1994:50).

society that was pursuing a deliberate engagement with the international community. Thus the appropriation of western musical styles in the evolution of a national Japanese music was informed by international concerns, both musical and non-musical throughout the twentieth century (Galliano 2008:34; Herd 2008:367, 1987:11–24).

While mimesis of European models remained prominent for many composers, Kōsaku Yamada (1886–1963) and Kiyomi Fujii (1899–1944) moved beyond these parameters and began to emphasise Japanese idioms in their work, although they did so in opposite directions (Herd 2008:367). Fujii, a graduate of the Tokyo school of music, included traditional Japanese music idioms in his work from the outset, which in Herd's view was pivotal in the evolution of *gendai hōgaku* (contemporary traditional music), a field that the composer Minoru Miki was subsequently to make his own (Miki 2008).

Learning to innovate in the new medium of western art music required a set of skills that would take several generations to develop. According to Galliano (2002:36), the transplant of the traditional Japanese system of social hierarchy and obligation onto the new western musical forms could hamper composers, with their allegiance to their chosen forms of German or French school. Therefore one of the most innovative concepts of the period was an emphasis on greater independence of mind and of creativity over traditional deference, although the potential of such independence was not to be realised until the openness and experimentation of the post-war era.

2.3.3 Experiments and expressions: new approaches and a re-evaluation of Japanese musical traditions (1946–1996)

Whilst Japan experienced significant deprivation in the immediate aftermath of the war, within a few years the post-war boom had begun, heralding an era of rapid, substantial socio-economic change in Japan. This era is sometimes referred to as *Shōwa Genroku*[48] (Totman 2005:465–481,517–544), when Japan transformed

[48] *Genroku* was a prosperous period for culture and the arts during the late seventeenth and early eighteenth centuries, and *Shōwa* refers to the reign of the emperor from 1926–89.

from wartime poverty and isolation to international economic power, domestic prosperity, and a prolificacy of culture and the arts (Totman 2005:517, Jansen 2000:710, Gordon 2003:270).

American occupation between 1945 and1952, support for Japan's re-entry into the international market, the unprecedented openness of the post-war Japanese state, the improvement of domestic working conditions, and the favourable rapid growth of the global economy all contributed to the unprecedented rate of Japanese reconstruction and economic growth. These developments generated an expanding middle class who came to represent mainstream society, and helped to standardise the shared experiences of the Japanese people, contributing to the perception of a homogenous society, a concept propounded by the intelligentsia (Totman 2005:523).

Mass media played a key role in the propagation of shared experiences, through publishing, radio, movies, and TV broadcasting. The state broadcaster, NHK, began broadcasting in 1953 shortly followed by commercial competitors, and by the 1960s TV was a part of Japanese homes. Coverage of significant events, such as the marriage of Crown Prince Akihito to a commoner, Michiko Shōda, in 1959, helped define Japanese society, and Japan's re-entry to the international world was boosted by the Tokyo Summer Olympics in 1964.

All were indications that Japan's post-war culture was a "part of a modern global culture common to the advanced capitalist world" (Gordon 2003:265). The increasingly prosperous citizens also benefitted from far greater access to international experiences, particularly American. This trans-pacific influence included American compositional trends in the post-war era, bringing Japanese composers into contact with American composers, particularly John Cage, who was to have an enormous impact upon Japanese post-war composition (Herd 1987:245, Galliano 2002:221–231, Uno Everett 2004:1–21, Takemitsu 1995:27–31).

In this brave new world, the prolificacy of arts and cultural activities of *Shōwa Genroku* were marked by self-reflection and re-definition, experimentalism and

openness, and encompassed cinema, theatre, literature, dance, art, and music, all aided by the new economic growth and stability. Increasing numbers of Japanese travelled abroad and new foreign influences entered Japan. Japanese musical instrument manufacturers entered the international market, as did musical teaching styles such as the Suzuki method (Totman 2005:535), while the expansion of Japanese publishers enabled the translation of many non-Japanese works and the export of Japanese works to the international market (Totman 2005:18–19, Gordon 2003:265), which again raised the question of European and American cultural hegemony.

At the same time, Japanese attitudes toward their own culture were ambivalent, particularly to traditional arts associated with the wartime ethos, and with composers, writers, and artists focusing on European and American approaches (Galliano 2002:128), and engaging in intensive self-examination. Some practitioners preferred to seek a new voice, which transcended pre-warJapanese and European constructs, which for composition was aided by the importation of methods with little extraneous cultural baggage (Galliano 2002:128, Herd 2008:373, Totman 2005:517), and blurred traditional cultural distinctions. Cultural practitioners drew on indigenous and foreign resources to develop their new voices, through events and performances (Totman 2005:525). In music this included the importation of Messiaen's modes, Schoenberg's twelve-tone system, and atonality as well as (in the early sixties) the ideas of John Cage (Takemitsu 1995:27–31), which were to have a profound impact upon Japanese composers.

Whilst western music held prestige and was the focus of composition and music-making during this period, the way in which western music was appropriated became more individual and subjective, with a greater engagement with the aesthetics and ethics of Western Art music beyond the superficial expressiveness of the forms. Furthermore, it was felt that Japanese assimilation of western art forms would differ from the original context of the medium (Galliano 2002:132), reflecting a strong connection between music and Japanese locales in *hōgaku* forms, although this has not hindered the internationalisation of the shakuhachi.

Whilst interest in *hōgaku* was quiescent during the immediate post-war era, from the 1950s onward a renewed interest in *hōgaku* gathered pace, garnering attention from a wide swathe of composers including nationalist classical composers such as Yasūji Kiyose, Yoritsune Matsudaira, and Fumio Hayasaka, to avant-garde composers such as Takemitsu and Jōji Yuasa, and others such as Maki Ishii. This renewed interest in *hōgaku* led from experiments in *shin-hōgaku* (new traditional music), subsequently championed by Minoru Miki (1930-2011), to avant-garde and cross-cultural experiments, explored further in the next chapter. Whatever their designation, all of these composers explored similar themes of Japanese traditional music and musical aesthetics (Galliano 2002:238–254, Herd 2008:375–381, 1987, 1989), such as a concern with timbre and texture, timbral heterophony, rhythmic indeterminacy, modality, tonal indeterminacy, microtonal pitch movement, silence, and movement/immobility.

These themes were often expressed in a manner at a variance with many of the values espoused in Western Art music; however, this new generation of composers found congruencies between Japanese musical traditions and twentieth century experimental avant-garde techniques, such as in the contemporaneous approaches developed by Cage (Herd 1987:245). Whilst some of these post-war composers had been trained, others, particularly the avant-garde experimentalists such as Takemitsu, were self-taught and generally more inventive as they had assimilated western methods outside formal educational norms. Furthermore, these composers had unprecedented access to western scores and translations of western musical and non-musical texts as a result of the growth in the publishing industry, which facilitated the exploration of ideas.

A group of composers, including Takemitsu and Yuasa, who drew on individual, experimental approaches from a wide pool of resources and sought to explore sound and combine Japanese and western approaches, came together to form *Jikken Kōbō*, the experimental workshop in 1949[49] (Galliano 2002:150, Herd 2008:375–377). While previous composers had tended to appropriate discrete

[49] Herd (2008:375) dates the inception of the group to 1949, while Galliano (2002:151), Siddons (2001:6), and Burt (2001:39) cite 1951 as the official instigation of the group.

elements of Japanese music, such as modal systems or rhythmic structures, this new group of composers sought to combine Japanese and western musical ideas by referencing the more abstract underlying principles of Japanese music, arts, and cultural approaches: ideas of time, space and texture. The group held workshops to study scores of European composers (Messiaen, Schoenberg, Webern, and Bartók), and to discuss new ideas and the latest articles on American composers such as Aaron Copland, Roger Sessions, and John Cage, the pupil of Henry Cowell (1897–1965), who had studied the shakuhachi in America (Sheppard 2008, Sachs 2012, Miller 2006).

Between 1951 and 1957, the group held annual concerts showcasing their own work and the work of foreign composers. The first performance of Messaien's *Quattor pour la fin du temps* (1940) was given by the group in 1952, and in 1954 they premiered Schoenberg's *Pierrot Lunaire* (1921). Cage's influence on members of the *Jikken Kōbō* increased with the return of the composer Toshi Ichiyanagi to Japan from America, where he had been studying composition at the Juilliard. During his studies he met John Cage (Lieberman 2004:197), who had a profound impact upon Ichiyanagi with his ideas on indeterminacy and anti-rationalism in music. Cage suggested to Ichiyanagi that Ichiyanagi's own culture held possibilities for exploring these new ideas in music, and most importantly to learn by challenging and experimenting with existing methods and fundamental ideas of music and musical meaning (Herd 1987:245).

These ideas were to have a profound impact on Takemitsu and other composers back in Japan (Takemitsu 1995:27–31, 137–138), and were further inducements to re-examine and develop closer ties with their own musical and cultural heritage through ideas of texture, space, and time. Of the *Jikken Kōbō* members, the only composer to have much direct knowledge of traditional genres was Yuasa, who had studied *utai* singing in the *nō* theatre tradition (Galliano 2012:2), whilst other composers such as Takemitsu had felt little connection with *hōgaku* until they saw the compositional possibilities inherent in realisation of timbre, space, and time in *hōgaku* genres (Herd 2008:375).

2.3.3.1 Takemitsu, Cage, and the shakuhachi

Despite Takemitsu's early lack of connection with *hōgaku*, from among this compositional cohort Takemitsu would go on to achieve the most international prominence, with his seminal work *November Steps* (1967), for shakuhachi and biwa with western orchestra. This work has come to epitomise cross-cultural musical paradigms between Japan and the western art music tradition (Tokita 2002:12–11, Smalldone 1989, Takemitsu 1987, Long 2005, Galliano 2002, Burt 2001, Uno Everett 2002, de Ferranti 2002). Takemitsu was a prolific composer who frequently explored Japanese themes in his work, although his actual use of traditional Japanese instruments, mostly during the 1960s, was comparatively low.

His exploration of Japanese themes of timbral depth, temporal indeterminacy, modality, and space in many of his concert works,[50] such as *Arc for Strings* (1963–1976) and *Dorian Horizon* (1966), are integral to the musical structure of *November Steps* (1967) for both the western orchestra and the Japanese instruments. The expression of these themes in the work, through its structure and articulation, prompt considerations of cross-cultural musical epistemologies, not least from Takemitsu's explicit aims in the work:

> Two worlds of sound: biwa-shakuhachi and the orchestra. Through juxtaposition it is the difference between the two that should be emphasized. (Takemitsu 1995:87)

Although this work with traditional Japanese instruments has become one of his best known, Takemitsu did not engage with Japanese musical traditions during his upbringing and early career. Instead it was the artistic openness of *Shōwa Genroku*, the emerging experimentalism, and the shock of Cage's music and ideas (Takemitsu 1995:27–31, 137) that prompted his own personal re-evaluations of, and engagement with, the traditions of his homeland. Although Takemitsu was already aware of Cage, Ichiyanagi's introduction of Cage's piano works made an indelible impression on Takemitsu and he went on to develop a lifelong friendship

[50] Although there has been much discussion of Japanese themes in Takemitsu's work, in 1963 John Cage considered European influences to be more prominent in Takemitsu's work than Japanese (Lieberman 2004:197–198).

with Cage. The shock for Takemitsu was of a westerner re-importing Japanese ideas into Japan, and encouraging him to embrace the traditional music culture of Japan toward which Takemitsu had ambivalent, albeit softening, feelings.

Cage's approaches to indeterminacy, multi-layered spatial sound, the use of silence as a plenum rather than a vacuum, and the privileging of the individual timbre of a single sound event over the syntactical relationship between events resonated very strongly with traditional Japanese aesthetics and Takemitsu's existing ideas (Burt 2001:96, Takemitsu 1995:27–31). Furthermore, these attributes are all found in shakuhachi *honkyoku* and other Japanese music traditions. Thus, Cage's ideas conflated with Takemitsu's explorations of a single sound in a stream of sound, the texture of *sawari*, and the silence of *ma*,[51] key concepts in Japanese musical aesthetics (Takemitsu 2004:199–207, 1995:51–66).

By the time Takemitsu wrote *November Steps* (1967), he was using Japanese musical instruments in concert, film, and TV work to explore these conceptions of sound, time, and space. *November Steps* is structured in a series of exchanges between the western orchestra and the shakuhachi and biwa. These exchanges are framed by these themes of indeterminacy, microtonality, and texture, but are also juxtaposed by stability of pitch, contrasting textures, timbral techniques, and instrumental density. The work epitomised the east–west conundrum, which resonated at its premiere and has continued to resonate, influence, and inspire ever since.

2.3.3.2 Takemitsu's contemporaries and the shakuhachi

Whilst this composition has come to be regarded as the seminal cross-cultural composition of Japanese with western instruments, it was neither the first nor the last such composition, as illustrated in the compilations of Japanese *yōgaku* (western style) composers by Samuelson (1994), Iwamoto (1994), and Benitez and Matsushita (1994). Throughout the sixties, the number of compositions for shakuhachi and other Japanese instruments rose exponentially, in a variety of

[51] See Chapter 4, §4.4.

ensembles and musical contexts,[52] written by Takemitsu (1930–1990) and composers such as Ryōhei Hirose (1930–2008), Makoto Moroi (1930–2013), and Minoru Miki (1930–2011) (Benitez and Matsushita 1994).

Earlier composers had tended to focus on genres such as *gagaku*, rather than the distinctive instrumental traditions of the shakuhachi, the biwa and shamisen traditions, and koto genres. Even then, the shakuhachi came into use later than the other traditional instruments. Overall, the rate of inclusion of such traditional instruments in the post-war era was slow, partly due to militaristic and nationalistic associations and to the prevailing western art hegemony (de Ferranti 2008:125, Herd 2008:378). It was only in the 1960s that the shakuhachi began to enter compositions, which increased in number as time went on.

Although the shakuhachi came to be used more frequently, it was not the most popular of traditional instruments to be used in *yōgaku*. Instruments such as the koto had received considerably more attention in twentieth century composition, particularly through the new music of the Meiji era (Meiji *shinkyoku*) and the compositions of Michio Miyagi (1894–1956) (Flavin, 2008:174); indeed Flavin credits the koto as a prominent influence in the revival and renewal of Japanese music traditions (ibid.).

Nevertheless, in the experimental climate of the sixties and encouraged by the ideas of Cage, the shakuhachi came to be explored more widely in film and TV music, solo shakuhachi works and cross-cultural ensemble works for concert halls. Takemitsu was using the shakuhachi in TV and film music during the early 1960s (Siddons 2001:11, 24–25), and in 1963 the prolific composer Minoru Miki, who went on to write more than sixty works using shakuhachi (Miki 2008:207), wrote *kurudando – Cantata for Japanese instruments and mixed chorus based on melodies from the Amami district* for mixed chorus and Japanese instruments, including shakuhachi.

[52] See Chapter 3, §3.2 and Table 3.2.

Miki followed this in 1964 with *Concerto for Strings and Japanese Instruments: Adagio in Yo mode; Allegro in In mode* for shakuhachi and other Japanese instruments and a western string ensemble. Although these were ensemble works, compositions featuring shakuhachi were soon to arrive. 1964 was a fruitful year for shakuhachi with the premier of *Heki* (Thunderbolt) for three shakuhachi and a string quartet by Ryōhei Hirose; Makoto Moroi's influential *Chikurai Goshō* (five pieces for shakuhachi); and Katsutoshi Nagasawa's *Concerto Grosso* for shakuhachi, string ensemble, and percussion (Iwamoto, 1994:5–7; Benitez and Matsushita, 1994, Miki 2008:207–227).

Both Ryōhei Hirose and Minoru Miki went on to explore the shakuhachi in numerous compositions over subsequent decades, with Miki in particular exploring both cross-cultural projects and championing *shin-hōgaku*. Hirose experimented with a variety of arrangements for shakuhachi in his sixteen shakuhachi works written between 1962 and 1983, ranging from solo shakuhachi and multiple shakuhachi to cross-cultural combinations of shakuhachi with western and Japanese instruments.

These included *Concerto for shakuhachi and orchestra* (1976); *Tenrai Chikyo* (1976) for shakuhachi, *fue* (a transverse Japanese flute), four recorders, and four percussion; and *Sai* (1973) for shakuhachi, violoncello, and percussion (Benitez and Matsushita 1994:243, Galliano 2002:240–241, 286–287). In addition, he experimented with similarities of sound between the shakuhachi and the cello, using amodal mimesis (Cox 2010:50–55) of shakuhachi techniques of *yuri*, *meri*, and *kari*[53] on the cello in *Triste* (1971) (Galliano 2002:287).[54]

Miki, meanwhile, experimented with the shakuhachi in cross-cultural combinations involving western instruments, such as *Ai for* Shakuhachi *and Strings* (1978) for shakuhachi and string orchestra, and *Yui III* (1985) for shakuhachi, twenty-one21-string koto, *futozao* shamisen, string quartet, and harp, in which the shakuhachi is an ensemble instrument (Miki 2008:214, 220). Miki also combined

[53] See Chapter 4, §4.4.

[54] See Chapter 3, §3.3.5.2.

the shakuhachi with other instruments from East or Southeast Asia in small ensembles, as seen in his work *Utayomizaru ("The Monkey Poet"), a musical opera in two acts* (1983) for Japanese instruments, singers and Indonesian gamelan. He also used the shakuhachi as an instrument in his Orchestra Asia, for which he wrote works such as *Loulan as a Dream* (1996) (Benitez and Matsushita, 1994:247–248, Miki 2008:219, 223).

Through this small snapshot of Japanese composers and their works, we see varied instrumental arrangements, suggesting that Japanese composers were willing to experiment with different formats and ideas in the use of shakuhachi in contemporary composition. Furthermore, Japanese composers such as Toshio Hosokawa (b.1955) continue to explore the possibilities of the shakuhachi in cross-cultural contemporary composition as we see in his work *Voyage X – Nozarashi* (2009) for shakuhachi and western chamber ensemble.[55]

Nevertheless, it is Takemitsu who has become best known on the international scene for cross-cultural composition between Japanese and western art instruments, despite such works constituting a tiny proportion of his overall output. Furthermore, almost all of his works using traditional instruments were written during the sixties; thereafter his use of them was rare, especially when compared to the works of Hirose and Miki. Nonetheless, Takemitsu's small corpus, and in particular *November Steps*, has raised the profile of the shakuhachi on the international western art scene and thus provided a basis for other composers, both in Japan and elsewhere. These contemporary composers and composer-players have written for shakuhachi and other Japanese instruments in myriad settings – acoustic, electronic, or both – in combination with western orchestral and other non-Japanese instruments. It is to this contemporary international cohort that we will now turn.

[55] http://www.schott-music.com/shop/9/show,262662.html (28 Feb. 2015).

2.4 Contemporary compositions for the shakuhachi: internationalisation and experimentation (1946–present day)

Since Takemitsu's *November Steps* the shakuhachi has become more widely known on the international scene with a wide variety of contemporary compositions emerging from Europe, the U.S., and Australia. Whilst many non-Japanese have been attracted to the Buddhist heritage of the instrument (Keister 2004:99–100), others have explored the possibilities of the shakuhachi as a musical instrument as performers or composers, or both. Over the past few decades an increasing number of composers have incorporated the shakuhachi within a western art compositional medium, exploring its distinctive timbral and microtonal flexibility. For these composers and composer-shakuhachi players, the compositional context is generally secular; however, the composers are often very aware of the Buddhist heritage of the instrument and have a more general interest in Japanese music and the music of other cultures (Denyer 1994, Nakamata 1994, Regan,[56] Iwamoto 1994, Cronin 1994, Samuelson 1994).

The myriad compositional styles that have been employed in these cross-cultural collaborations range from contemporary classical to jazz, folk, and pop, and these styles have been explored through multi-faceted performance contexts and musical arrangements. Shakuhachi use within contemporary classical is particularly varied, encompassing compositional styles from avant-garde and electro-acoustic to tonal, often with crossover into other genres such as jazz. This increasing diversification of shakuhachi musical contexts is partly a reflection of the expanding internationalism of the instrument, aided by the growing availability of online audio-visual resources. However, the shakuhachi expansion is also a reflection of the increasing diversification of contemporary classical composition (Griffiths 1994:191).[58]

[56] http://www.martyregan.com (25 Jun. 2015).

[58] Whilst Griffiths refers to the diversification of western art composition, I would add the caveat that his implied lack of prior diversification may be as much a result of the dominant narrative in musicological writing as from any other causes; however, further such speculation is outside the remit of this study.

After the experimentalism of the 1960s and with technological advances and growth of ethnomusicology in universities, composers have had access to resources hitherto unavailable. Composition could encompass computational and electronic methods, which are now becoming possible in live performance, and composers could readily explore compositional approaches from a broad array of options including aleatoric, minimalist, tonal, improvisatory, jazz etc. and reference a range of musical genres and styles including many non-western musics, in performance contexts ranging from symphony orchestras to small ensembles (ibid.).

With composers from North America, Europe and Australia now using the shakuhachi in a diverse array of compositional media, and with performers keen to engage in collaborations outside the traditional corpus, the dissemination of the shakuhachi on the global stage is evident through performances, recordings, and scores. For composers of the last several decades, and for some earlier composers, their work may be referenced in online resources such as websites and video channels, media reviews (online and print), and journal articles.

A few authors (Samuelson 1994, Benitez and Matsushita 1994, Iwamoto 1994, Miki 2008) have compiled and published lists of compositions for the shakuhachi by American composers, Japanese composers, and a small European cohort written during the twentieth century up to the early nineties, with the vast majority of compositions dating from the post-war era. The information they provide gives a skeletal overview of activity in America and Japan with considerably more Japanese composers listed than those from elsewhere; however, it has also proven much more difficult to further source and contact the Japanese cohort, online or otherwise, without the benefit of fieldwork.

Other twentieth century and contemporary composers, whether from Europe, the U.S., or elsewhere, have also proven difficult to trace online; reasons for this may include the age of the composer relative to the evolution of the internet, the extent of their compositional activity, and personal choice. Indeed, the aforementioned shakuhachi composition compilations were largely compiled through postal

questionnaires. Furthermore, many composers may not have written much for the shakuhachi, or been full-time composers or professional shakuhachi players, so they would not necessarily record either a work or themselves online.

Samuelson (1994), and Benitez and Matsushita (1994) clarify that their composition compilations were assembled from responses to postal questionnaires. Samuelson obtained his survey of twenty-three American composers from a questionnaire sent to fewer than a hundred composers, players, and scholars, and was obliged to focus only on classical contemporary composition and composers, and then only on works in which the shakuhachi is prominent (Samuelson 1994:88). Likewise Benitez and Matsushita compiled their data on 145 composers from a questionnaire sent to 315 Japanese composers in Japan, supplemented with material from print references, and similarly restricted their survey to shakuhachi *yōgaku* works. In addition, they explicitly restricted themselves to the post-war period (Benitez and Matsushita 1994:239).

Iwamoto (1994) provided a brief survey of post-war composition in Japan followed by a listing of seventeen recent composers for the shakuhachi from, or with connections to, Europe, but did not clarify his parameters to the same extent as documented in the previous two surveys. Miki (2008) meanwhile includes a list of his prolific compositional output at the end of his book *Composing for Japanese Instruments*, which was translated by his pupil, the American composer Marty Regan, whose composition *Forest Whispers...* (2008) is one of the contemporary compositions discussed in Chapter 6. This study would benefit from further investigation of other contemporary composers for shakuhachi and even of earlier post-war and pre-war *yōgaku* repertoire for the shakuhachi, but this would require fieldwork in Japan and fluency in Japanese which I currently lack.

Whilst the aforementioned surveys provide a broad view of shakuhachi composition in Japan, America and Europe covering 1945–1990, no comparable article covering any other geo-political region for that period has been published, and neither has a comparable survey of shakuhachi compositional material from the 1990s to the present day been compiled. Furthermore, while these surveys

provide a picture they cannot be described as exhaustive as they only account for those who responded to the survey, or were traceable by the authors via some other means – the absence of evidence is not evidence of absence. Therefore, whilst we can cautiously construct initial estimates of the quantity and type of usage from this dataset, the data should not be taken as a complete picture of shakuhachi use in western style composition. Aside from these lists, information on composers must be gleaned via other means, such as online resources including the websites of composers, publishers, music institutions, and organisations; reviews and listings of performances, broadcasts, and online video; print resources including reviews, journals, and books; and via personal contacts.

Through such resources I have been able to supplement (and occasionally correct) the listed data from Japan, the U.S., and Europe, and in addition develop a preliminary survey of post-war compositions from elsewhere and of compositions dating from the 1990s to the present day. In order to assess the information gleaned from the surveys of Benitez and Matsushita, Samuelson, and Iwamoto, and from the other aforementioned sources, I have constructed a database in Microsoft Excel, discussed further in Chapter 3. Meanwhile, to give an indication of the range of styles and instrumental combinations with which the shakuhachi is incorporated in contemporary compositions, here is an overview of the multi-faceted approaches taken by composers and composer-players when writing for the shakuhachi.

2.4.1 A diversity of composers

The variety of approaches and styles taken by the international cohort of contemporary composers and composer-players when writing for the shakuhachi ranges from the more conventional and traditional end of the spectrum through to niche jazz and avant-garde composition; the brief selection proffered here is representative of this compositional and global diversity. Works that are more influenced by the respective traditions referenced in them can be seen in the compositions of the American composer-player Marty Regan (b.1972), and in a work, *Llef* (1995), by the Welsh composer-player Hilary Tann (b.1947) (Samuelson 1994:93). Marty Regan, who has played shakuhachi for some years and has written

fifteen compositions using shakuhachi,[59] studied composition in Japan under the prolific composer Minoru Miki, who championed *shin-hōgaku* and is further discussed in Chapter 3.

Regan's immersion in Japanese music and tutelage under Miki has yielded results with a prolific output of works exploring traditional Japanese music, alongside influences from composers such as Reich and Stravinsky. Within Japanese music his composition reflects traditional sounds and approaches such as rhythmic indeterminacy and pitch organisation, while his western art influences can be seen in his melodic organisation and use of instrumentation. He blends these two perspectives in his work *Forest Whispers…* (2008) for shakuhachi and cello, discussed in Chapter 7. Regan remarks that *Forest Whispers…* was a "duet composed for representative instruments from the 'East' and 'West'.

In this work, the shakuhachi and violoncello are blended in such a way that they become nearly indistinguishable from each other,"[61] an exploration of congruencies between the instruments not dissimilar to the aims of Hirose's evocation of the shakuhachi on the cello in *Triste* (1971) (Galliano 2002:287). Given the aim of Regan to combine "representative instruments from East and West" and his realisation of this aim, his work is an example of a key aim of this Ph.D., to explore how the shakuhachi was combined with western instruments.

Although Hilary Tann's works have been influenced by Japanese aesthetics and music (*Shakkei*, 2007 for piano and woodwind soloist; and *Shōji*, 2010 for flute and oboe) and she has studied shakuhachi, she has only written one work for the shakuhachi, *Llef* (1995), for shakuhachi and cello, which she later revised for Boehm flute and cello. *Llef* is based on a Welsh hymn of the same name, which is cited as a key influence on Tann's composition in the score notes.[62] Whilst there are references to the hymn in the work they are overshadowed by prominent and readily identifiable references to traditional shakuhachi *honkyoku* – if you are

[59] http://www.martyregan.com/list2/shakuhachi/ (10 Oct. 2014).

[61] http://www.martyregan.com/store/recordings/forest-whispers/ (10 Oct. 2014).

[62] http://hilarytann.com/compositions?catID=15 (24 Jun. 2015).

familiar with *honkyoku*. Although she may not have studied shakuhachi to the same extent as Marty Regan, she has nonetheless absorbed the sound–world of *honkyoku* and in Japanese music more generally in terms of melodic motifs, phrasing, and space in *Llef* and in other works such as *Shakkei* and *Shōji*.

At the other end of the western art music spectrum, the avant-garde British composer Frank Denyer (b.1943) has taken the sounds of the shakuhachi into ensemble works that have an emphasis on timbre and microtonality, central themes in many of his works, alongside his use of instruments from a wide variety of music cultures. He has combined the shakuhachi with western and non-western instruments in a number of works mostly written in the 1970s and 1980s[63] and has also written solo works for the instrument, primarily for his long-time associate, the retired shakuhachi performer Yoshikazu Iwamoto, who has been resident in Britain for decades. More recently, the Danish–Japanese shakuhachi player Kiku Day commissioned a work from him as part of her Ph.D. project (Day 2009) on contemporary repertoire for the *jinashi* shakuhachi, which is discussed below.

Denyer's works are tightly scored and controlled and are often a technical challenge for the players to perform; however, these demands push both performers and audiences to reconsider their conceptions of privileged musical attributes. Sadly, opportunities to do so are comparatively rare, given the relative scarcity of public performances of his work, particularly his shakuhachi corpus. Nonetheless his works represent a radical departure from both Japanese and western structural conventions through a meticulous explorations of sound and texture, as will be seen in the analysis of *The Tender Sadness of Tyrants as they Dance* (1991), in Chapter 6.

Kiku Day investigated contemporary repertoire for the *jinashi* (unlined) shakuhachi rather than the commonly used *jinuri* (lined) shakuhachi. As mentioned in the introduction to this chapter, the shakuhachi underwent

[63] http://www.frankdenyer.eu (30 Apr. 2015).

twentieth-century modifications for ensemble performance, notably with the use of lacquer to line the instrument to help stabilise the pitch; this *jinuri* shakuhachi became the norm, while use of the *jinashi* instrument declined, particularly in the secular environment (Tsukitani 1994:13, Day 2009:32–33, 2011:62–63). Day, who has extensively studied the *jinashi* instrument and is also western-trained, explored the use of the *jinashi* instrument in a contemporary compositional context by commissioning works from composers for the instrument for her Ph.D.

In addition to her Frank Denyer commission, Day also commissioned works from the Danish composer Mogens Christensen, the British composer Roxana Panufnik, the London-based Japanese composer Yumi Hara Caukwell, and the Japanese composer Yūji Takahashi, all of whom are western-trained and have experience in navigating cultural and musical boundaries, although only Denyer and Takahashi had specific experience of composing for the shakuhachi (Day 2009:125).

Mogens Christensen (b.1955), who is well known in his home country as a composer, author, and educationalist, has explored combinations of electronic, orchestral, and non-orchestral instruments, including his experimental work for Day, *Night Flying Winter Cranes* (2009) written for shakuhachi and electronics.[64] The prolific British composer Roxana Panufnik (b.1968), who has written in a wide range of classical styles for a variety of performance platforms from concert hall to TV to liturgy, has explored cross-cultural musical spaces through her work for Day, *Wild Ways* (2007)[65] for shakuhachi (or flute and recorders) and double choir, and through a violin concerto, *Abraham*, incorporating Christian, Jewish, and Islamic themes.[66]

Meanwhile, the Japanese avant-garde electro-acoustic composer Yumi Hara Caukwell presented a very different style of work for Day with *Nota Bene* (2007)

[64] http://www.dacapo-records.dk/en/recording-mogens-christensen--pipes-and-reeds.aspx (24 Jun. 2015).

[65] http://www.roxannapanufnik.com/works-choral.asp (recently recorded for CD release) (24 Jun. 2015).

[66] http://www.roxannapanufnik.com/works-orchestral.asp (24 Jun. 2015).

for shakuhachi and amplified clavichord. Hara Caukwell, who is currently a music lecturer in London, explores not only the boundaries between cultures but also between genres such as contemporary classical, jazz, and avant-garde rock, with improvisation a common element in her work.[67] Day's remaining work was commissioned from the Japanese composer Yūji Takahashi (b.1938), who had studied composition in Berlin under Iannis Xenakis and had composed a few works for *jinuri* shakuhachi. Takahashi was initially ambivalent about composing for the *jinashi* shakuhachi and overuse of the specialist shakuhachi techniques that he had previously explored – his views on the instrument had changed (Day 2009:124–129). Although these works were commissioned specifically for a Ph.D. project, this is not the only commissioning avenue by which contemporary shakuhachi compositions may arise.

The well-attended 2008 World Shakuhachi Festival in Sydney, for example, incorporated a composition competition for new shakuhachi works in addition to the numerous workshops, lectures, discussions, and concerts of traditional and contemporary repertoire. A cursory survey of the subsequent eight-DVD set listings reveals the diversity of shakuhachi music on offer at this event, with some DVDs focusing on traditional repertoire, while two DVDs (*Soulful* Shakuhachi and *An Australian as a* Shakuhachi) are devoted to contemporary composition with a variety of instrumentation, and other DVDs include contemporary and twentieth-century composition, listing composers such as Marty Regan (U.S.), Anne Boyd (Aus.) and Elisabeth Brown (U.S.).[68] Thus far, we have met composers who have written for the shakuhachi, some by commission, in styles ranging from conventional to avant-garde. Other composer-players have focused more upon live performance, electronics and improvisation, often through collaborative ensembles; it is to these composer-performers that we will now turn.

The American composer-player Jeffrey Lependorf has written a polystylistic corpus which covers a range of styles from opera, theatre, and multimedia

[67] http://www.yumiharacawkwell.co.uk . http://www.uel.ac.uk/adi/staff/yumicawkwell/ (24. Jun. 2015).

[68] http://www.shakuhachi.com/V-WSF08.html (24 Jun. 2015).

performance art to solo and ensemble works.[69] He has developed a number of works for shakuhachi, often through improvisation and which he has approached with a keen awareness of timbre. Although the shakuhachi is prominent in his work, he also plays other East Asian wind instruments (*xiao*, *bawu*, and *hulusi* from China and the *tanso* from Korea).[70] As a shakuhachi player he is of the *Kinko-ryū*, yet his shakuhachi compositions and performance styles move well beyond traditional repertoire, and could broadly be defined as contemporary classical (although he has also collaborated with avant-garde jazz performers, such as the guitarist Scott Fields).[71]

Lependorf has written and performed both solo and ensemble works with improvisatory approaches and electronic media, heard on the solo album *New Bamboo: Silo Solos* (2005) in which he improvised shakuhachi in a grain silo, using the natural echoic acoustics of the space, and through a collaboration with the trio Chemical Composition[72] using improvisatory and electronic approaches to produce the album *Notes are Rain, Timbre is Snow* (2012) to name but two.

In jazz, meanwhile, the Danish-Japanese composer-player Kojiro Umezaki has explored musical possibilities as a member of the trio Beat In Fractions, as heard on their album *Beat InFractions*. The line-up is distinctive for the lack of harmony instrument such as a piano; the other members of the trio are a bassist and percussionist and the sound and style of the trio is akin to ensembles such as Chicago Underground. As a composer, Umezaki focuses on electro-acoustic composition, particularly live electronic performance, and has experimented with the shakuhachi in this context. An example of this is the track *La 3ième Langue* on the album *Extraditional* (1999).[73]

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[69] http://www.jeffreylependorf.com (24 Jun. 2015).

[70] http://www.jeffreylependorf.com/?page_id=59 (24 Jun. 2015).

[71] http://www.ayler.com/scott-fields-jeffrey-lependorf-everything-is-in-the-instructions.html (24 Jun. 2015).

[72] http://www.chemicalcomposition.net (24 Jun. 2015).

[73] http://music.arts.uci.edu/content/kojiro-umezaki (23 Jun. 2015).

He has combined his electronic approaches with an interest in cross-cultural musical spaces in *(Cycles) What falls must rise* (2009), for shakuhachi, string quartet, and electronics, which was released on the 2014 album *Cycles* (In a Circle Records).[74] Umezaki has also contributed a version of *Dona Nobis Pacem* to an album of Christmas songs coordinated by the cellist Yo Yo Ma[75] and contributed to various Silk Road projects:[76] *New Impossibilities* (2007), *The Silk Road Project* (2007), *Off the Map: The Silk Road Ensemble* (2009), and *The Silk Road: A Musical Caravan* (2002).

These composers represent a diverse snapshot of contemporary composition, improvisation and performance using the shakuhachi, with scored works and western orchestral instruments through to avant-garde jazz with electronics, and by extension illustrating the versatility of the instrument. There are many more current composers and composer-players than I can discuss in detail, such as the Australian composer Anne Boyd,[77] who has written for shakuhachi and orchestra; the American performer Bruce Huebner,[78] who is a founding member of the Tokyo-based mainstream jazz band Candela; the Canadian player-composer Bruno Deschênes,[79] and the composer Toshio Hosokawa,[80] who has written for shakuhachi and chamber orchestra as well as shakuhachi and orchestra, alongside other cross-cultural projects.

Furthermore, of the selection that I have presented here, the focus is on contemporary classical composition, jazz, and contemporary performance idioms.

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[74] http://kojiroumezaki.com (23 Jun. 15).

[75] http://www.healthyboys.com/KU_wp/?tag=yo-yo-ma (24 Jun. 2015).

[76] http://kojiroumezaki.section101.com/home , http://kojiroumezaki.com/?page_id=16 , http://www.healthyboys.com/KU_wp/?cat=30 (26 Sep. 2014), http://www.silkroadproject.org (http://archive.silkroadproject.org) (24 Jun. 2015).

[77] http://sydney.edu.au/music/staff-profiles/anne.boyd.php , http://www.fabermusic.com/composers/anne-boyd/biography (24 Jun. 2015).

[78] http://brucehuebner.com (24 Jun. 2015).

[79] https://www.fivecolleges.edu/jaid/artists/deschenes_bruno (24 Jun. 2015).

[80] http://www.schott-music.com/shop/persons/az/toshio-hosokawa (24 Jun. 2015).

I have not touched on the use of the shakuhachi in pop,[81] nor the use of shakuhachi in film and TV, folk, and other musical traditions (Hughes 2008:281–302, Matthews 2004:342, Tsukitani 2008:164, Flavin 2008:169–196), not least because my emphasis is on contemporary classical idioms and experimental jazz in which composers have considerable flexibility to explore the sounds of the shakuhachi, as illustrated by the diversity of aforementioned compositional projects. Investigations into the use of other shakuhachi areas may perhaps form the basis of a future study, as could a focus on a wider selection of current composers.

It is also perhaps noticeable that the selection of composers outlined here is primarily non-Japanese, or resident outside Japan, because they are easily traceable online through their own websites (written in the Latin alphabet) or through international shakuhachi organisations with websites in English. This is where fieldwork and more extensive knowledge of Japanese would be of considerable benefit for a study on contemporary shakuhachi composition by Japanese composers in Japan. Whilst investigating Japanese composers who have used shakuhachi was an initial aim of this study, it became apparent (for the reasons outlined in the introduction) that a broader scope would be required.

As a result, a broader and more diverse picture of shakuhachi composition has emerged, illustrating the establishment of the shakuhachi as an instrument integrated with contemporary composition in a global context, and as such demonstrative of considerable cross-cultural musical engagement. Given the increasing use of the shakuhachi in composition, improvisation and performance outside the traditional scope of the instrument questions emerge as to which aspects of the shakuhachi have been particularly attractive to composers and how the instrument has been integrated with these non-traditional musical domains.

[81] A classic example is the opening of Peter Gabriel's 1986 hit *Sledgehammer*; the shakuhachi opening is played by the British shakuhachi performer Clive Bell.

2.5 Composing for the shakuhachi: themes and challenges

Whilst composers and performers exploring new possibilities for the shakuhachi reflect considerable diversity of styles and approaches, their cross-cultural compositions and performances have generated common themes of instrumental attraction and possibilities, practical concerns, and conceptual questions over the appropriation of the shakuhachi in western idioms, with or without western art instruments. Shakuhachi composers and writers alike identify the privileging of timbre and closely associated microtonal variation (Blasdel 1984, 1988, 2001, 2003, 2005, Denyer 1994, Iwamoto 1994, Regan 2006, Cronin1994, Samuelson 1994) and for many composers timbral and microtonal range and flexibility provide the initial attraction to the instrument:

> I immediately took a liking to the shakuhachi. I was attracted to its rich timbre and wide range of tonal expression. (Regan 2006:7)
>
> … it is the changing timbre, or timbre as movement, that is so appealing in the shakuhachi. (Cronin 1994:77)
>
> The single most important trait of the shakuhachi, and that which gives it a special identity among wind instruments, is its extraordinary tone color…. The microtonal capabilities inherent in the shakuhachi approach those of a fretless string instrument. (Samuelson 1994:85–86)

Contemporary composers (Denyer 1994:45–52, Cronin 1994:77–81), performers (Iwamoto 1994:6–9), and writers (Samuelson, 1994:87–88) of shakuhachi material have highlighted potential dichotomies arising from musical categories privileged in shakuhachi music relative to those privileged in much western art music in any confluence between the two musical worlds. Shakuhachi music privileges that which western instrumentalists often consider external noise (Cronin, 1994:77), primarily hoarse timbres and timbral variation within a tone, and microtonal pitch fluctuations within the same tone, with both timbral and microtonal movement integral to the shakuhachi phrase. These attributes are often in opposition to musical attributes esteemed by western art musicians (Castellegno & Fabre 1994:222, Cronin 1994:79), so composers must navigate a sound-space in which these two distinct valuation systems can meet:

> A different kind of leap occurs when the shakuhachi is used in ensemble with western instruments. The shakuhachi makes overt what western instrumentalists are trained to avoid: the breathy tone, the timbre changing with pitch, the imprecise note values. I wanted to think of the breath of the shakuhachi player as the spine, or the rhythmic core for the ensemble. (Cronin 1994:79)
>
> The homogeneity of sound across the entire range of the instrument [the Boehm flute] and the precise intonation of the different registers are qualities which are valued most highly. The repertoire of traditional music played on the shakuhachi seeks other qualities from the sound of the instrument, such as possibilities for ornamentation and breath effects as well as important differences in timbre. (Castellegno & Fabre 1994:222)

Furthermore, traditional shakuhachi *honkyoku* is unmetered and is notated using proportional tablature; a player's breath dictates the duration of a phrase and the corresponding metrical organisation and tempi of the work. Musical movement is generated in *honkyoku* through variations in timbre, melody, register, and tempo, with reference to the overall structure of the piece, all of which emanate from the player's breath control, fingering patterns, and head and mouth movements. Whilst the player must manipulate a variety of physical parameters, the primary sound excitation method is breath (as with any wind instrument), and in this context breath has extramusical significance as a core Buddhist meditational tool.

Denyer rationalises the focus on breath control to evoke the 'musical sense' of a phrase as a focus on internal spiritual development, in that shakuhachi was and is used for Buddhist meditation. With this in mind, it is worth reiterating that the instrument did not evolve for public performance; rather it evolved as a *hōki*, a religious tool. Hence the focus was on the process of breathing–playing (*suizen* – blowing Zen), as a method of meditation rather than a musical end product.

Shakuhachi practice remains an internally directed focus on sound production, with the aim of achieving a neurophysiological state[82] traditionally defined in a devotional register, deriving from the practices of mendicant monks, either during their wanderings or within the ritualistic practices of a temple. This is in direct

[82] Keister refers to this state as 'embodiment' (Keister 2004:102–103).

contrast to western art music, which is composed as an expression of emotion or an idea, a statement for communication with an audience in a large public space (Denyer, 1994:45). To refine Denyer's distinction of western compositional aims, traditional shakuhachi *honkyoku* repertoire focuses on process with a tangential end result, while western music emphasises the end result: the idea, rather than the process.

From an initial attraction to the timbral and microtonal possibilities of the instrument and a desire to use the instrument in composition, composers must then consider not only how they will use the instrument, manage practicalities of tuning, timbre, musical structure, scale, and written representation, but also how they will respond to the history, context and traditional repertoire of the instrument (Tsukitani et al. 1994, Denyer 1994, Keister 2004, Regan 2006) and combine it with the very different context of western art music. For Regan, understanding the history and context of the shakuhachi is imperative, not least so that the composer develops some idea of the "unique idiomatic capabilities of the instrument" (Regan 2006:9):

> As a Westerner composer, one's compositional approach is bound to influenced [sic] by Western sensibilities, but if one chooses to compose for non-Western instruments one has the responsibility to at least know something about the history and basic technique of the instrument that you are composing for. (Regan 2006:9)

Equally, for Samuelson having this understanding is intimately connected to the success of the composition:

> New compositions for the shakuhachi, by either Japanese or non-Japanese composers, have been most successful when the composer has made a serious effort to achieve a deep understanding of the principles that underlie the shakuhachi. (Samuelson 1994:87)

By contrast Denyer has raised concerns over the historical adumbration of the shakuhachi in a western compositional medium (1994:47–48). While knowledge of the instrument's Buddhist heritage may be an advantage in understanding the evolution of shakuhachi repertoire and techniques, he foresaw potential

difficulties with the looming shadow of the shakuhachi's history on compositional style:

> There are special hazards facing any contemporary composer taking on the shakuhachi. The historical shadow of traditional *honkyoku* (the original solo style) is the most obvious danger. Its seductive influence ringing in the memory has the power to subvert almost any compositional idea into a pale silhouette of itself. (Denyer 1994:47)

Denyer sought to resist such subversion in his compositions, extracting the sounds and techniques of the shakuhachi into an avant-garde musical environment, whilst maintaining a focus on the timbres and microtonal possibilities of the instrument. His approach might challenge those who would consider understanding the extramusical context of the instrument to be paramount in understanding instrumental possibilities, and reflects a western compositional sonic bias to the (apparent) exclusion of a musical cultural context (Nakamata 1994:95, Regan 2006:9, Samuelson 1994:87). However, Denyer's focus is on timbre, the sound category privileged in shakuhachi music, rather than on conventional western compositional concerns of melody and rhythm.[83] Arguably Denyer has, therefore, appropriated the traditions of the instruments he uses through employment of their privileged sound categories, here shakuhachi timbre and closely related shakuhachi techniques.

Whilst Denyer considers historical adumbration of the shakuhachi in composition a potential difficulty, in practice such adumbration does not seem to pose significant problems for composers, as they choose the extent to which they reference traditional *honkyoku* styles and effects. For the composers and composer-players outlined above, both Umezaki and Lependorf have chosen to avoid historical adumbration to a greater or lesser extent in their works, particularly in the jazz and experimental projects, whilst performing traditional styles in other projects.

[83] Denyer has a Ph.D. in ethnomusicology with a focus on African musical traditions and experience of studying koto: http://www.frankdenyer.eu (17 Jul. 2015).

Likewise in Marty Regan's music, while references to shakuhachi *honkyoku* abound in *Forest Whispers…* (2008), such references are much less prominent in *Hydrangea* (2012) for shakuhachi and double bass.[84] For composers such as Roxana Panufnik and Mogens Christensen who are not players of the shakuhachi and do not have much experience of writing for the shakuhachi, questions of historical adumbration are much less prominent. In other words, composers negotiate their cross-cultural choice over how they use the shakuhachi with a greater or lesser reference to its traditional repertoire depending upon their needs, musical contexts, and personal outlook at the time of composing.

Once composers have taken the decision to use the shakuhachi in a particular western idiom, they must then navigate practicalities of tuning, scale, melodic structure, techniques and notation. Iwamoto (1994), Cronin (1994), Samuelson (1994), Miki (2008), Lependorf (1989), and Denyer (1994) have all produced articles and commentaries addressing these issues. Miki's invaluable *Composing for Japanese Instruments* was translated by his student, the American composer Marty Regan, in 2008 and provides a practical guide to the musical attributes and techniques of Japanese instruments including an entry on the scales, techniques and common ornaments of shakuhachi music. Cronin (1994) and Lependorf (1989) have specifically focused on composing for the shakuhachi in a western staff notation medium with articles providing practical suggestions of shakuhachi techniques and methods of notation, while Samuelson (1994) and Iwamoto (1994) illustrate techniques often accompanied by staff notation examples.[85]

Nakamata (1994), Cronin (1994), Regan (2006), and Huebner (2004) all offer a composer's view of working with the shakuhachi. These range from the timelessness of the instrument (Nakamata 1994:95–96) and its timbral, pitch, and temporal flexibility (Cronin 1994:77, Regan 2006:7), to an apparently straightforward means by which Japanese (music) culture can be accessed (Regan 2006:1–6), to the difficulties of combining shakuhachi scales with jazz harmonies

[84] http://www.martyregan.com/works/ (24 Jun. 2015).

[85] See Chapter 4, §4.4.2.

(Huebner)[86] and the potential difficulties in navigating the socio-musical specificity of the shakuhachi iemoto system (Nakamata 1994:97). In one significant respect, not referenced by the composers mentioned above, the shakuhachi is considered an instrument for mavericks 'outside' society (Keister 2004:107). It would be interesting to consider whether this identity of the shakuhachi has played a role in the dissemination of the shakuhachi outside Japan, and in its use by composers, but such speculation lies outside the scope of this study.

Keister (2004:107) cites the infamous twentieth-century shakuhachi player Watazumi as an example of individualistic development. Watazumi rejected shakuhachi organisations and musical terminology, instead viewing his practice as a spiritual sound and breathing exercise via melodies that he named *dōkyoku* (melodies of the way). Watazumi identified four types of breathing in which he trained students, the first of which was Rough Breathing,[87] which perhaps is connected to anecdotal evidence suggesting that Watazumi was the driving force behind the popularisation of the hoarse, breathy technique known as *muraiki*, discussed further in Chapter 3. Whilst *muraiki* has become a readily identifiable technique of the shakuhachi it was not used to a great extent in traditional *honkyoku*. Arguably it has become the defining feature of shakuhachi music and the greater use of this technique is a product of its twentieth-century evolution, playing a significant role in the broad timbral compass of the instrument, and thus frequently used in cross-cultural collaboration.

Cronin (1994:78) was not only attracted by the timbre of the shakuhachi but also by the breath control of the player, temporal flexibility in the music, and by the idea of orality in the shakuhachi tradition, with 'skeletal' notation. It is a misconception to consider western fixed pitch notation against other 'skeletal' notation, not least because 'skeletal' covers a multitude of approaches to notation which vary in the detail they convey and in the method of representation, not only between music traditions, but also between genres within a tradition.

[86] http://www.jazzinjapan.com/interviews/273-candela-.html (20 Jul. 2015).

[87] http://www.komuso.com/people/people.pl?person=1222 (6 Nov. 2014).

For example, Tozan's tablature for his new secular *Tozan-ryū* repertoire has metrical organisation akin to that of western staff notation, whereas traditional shakuhachi *honkyoku* tablature uses proportional duration, befitting its unmetered performance. Equally, the tablatures of different shakuhachi *ryū* are not necessarily mutually intelligible. Finally, whilst shakuhachi tablature presents fingerings and relative durations, not all techniques are presented on the score, nor are techniques represented in the score comprehensible by an outsider. Nonetheless, much shakuhachi music notation presents at least half of the information required for performance.

Specific techniques and performance directions will come from the teacher in the manner of the teacher's *ryū* affiliation(s). Whilst Cronin views the shakuhachi as having a high degree of orality in its transmission, this can be misleading. In the time I have been studying shakuhachi, notation has always been the starting point for a new piece, whether in *honkyoku* or *gaikyoku*. It is worth reiterating that widespread use of notation can be traced back to Kurosawa Kinkō (1700–1770), with his codification of shakuhachi melodies and establishment of shakuhachi schools, while the subsequent expansion of notation systems (Lee 1988) during the early twentieth century is in line with the expansion of shakuhachi styles (Tsukitani 1994:103-129, 2008:158–164) previously discussed in the history of the shakuhachi.

Although notation is the basis for transmission, significant performance components and techniques are transmitted orally; so whilst orality is not the primary vehicle for transmission it does have a larger and more formal role than in the western art tradition. It is possible that in Zen Buddhist contexts where the shakuhachi is considered a *hōki* (Keister 2004:99–100), orality is more prevalent, with a larger role than is the case for the shakuhachi as *gakki*, however this is speculative at present. Cronin (1994:78) also notes that translating shakuhachi tablature into western staff notation has a significant impact on the priorities that we accord to the music, an issue that I explore more fully in Chapter 4. For the composer Yūji Takahashi, who worked with Kiku Day, exploring the range of

sonorities and modern techniques possible on the shakuhachi was an approach about which he felt some ambivalence, not least because he felt he had moved on from such projects and now viewed the shakuhachi in a more traditional light as a vehicle for *honkyoku* (Day 2009:124–129).

Regan's view of the shakuhachi as a vehicle for accessing western culture touches on the dual identities of the shakuhachi: on the one hand as an embodiment of Japanese culture (Matthews 2004:335) with this embodiment inaccessible to non-Japanese, whilst simultaneously being considered accessible to non-Japanese ears, given its international renown. This is perhaps an illustration of the many ways in which we can hear music, and of the international communicability of sound media. It also begets the question: Are some forms of musical expression more communicable than others, and if so, why? Investigation of this question must wait for a future study.

2.6 Conclusion

The sonority and wide timbral compass of the shakuhachi may well be one such medium, not least according to the diversity of composers who have worked with the instrument in myriad ways. These varied approaches, suggestions for and responses to composing with the shakuhachi all indicate the rapid establishment and evolution of the shakuhachi as a compositional tool and that composers are willing and able to negotiate a successful shared musical space in their cross-cultural compositions. Furthermore, it is a space in which the range and flexibility of timbre and microtones may be explored and developed with works having a timbral trajectory in their overall architecture or at a phrasal level.

3 Cross-cultural shakuhachi compositions from the post-war era to the present day: two surveys of the sources

3.1 The context and function of the surveys

In the previous chapter I introduced the evolution of the shakuhachi as an instrument used in contemporary western composition with western and other non-traditional instruments, and outlined contemporary composers and the varied environments in which they have used it. However, there are many more composers and compositions than could be discussed individually, both on the international scene and in Japan, so in order to gain a more insightful view of the large and varied composition corpus I have undertaken two surveys of shakuhachi compositions from the post-war era to the present day using a single dataset of composers, compositions, and the composition instrumentation gleaned from a variety of sources. Firstly, I survey the internationalism of the compositional cohort in relation to cross-cultural instrumentation trends, and secondly, I take a closer look at the instrumentation in works with reference to the resultant timbral architecture created by the shakuhachi and instrument(s) in question.

In these surveys, my primary consideration is the diversity of the instrumentation, with an emphasis on the prevalence of shakuhachi use with *western* instruments both in Japan and on the international scene. This emphasis is twofold. In the first survey (cross-cultural instrumentation trends) I will focus on combinations of shakuhachi and western instruments, with reference to the nationality of the composer and regional identity of the instrumentation, so as to illuminate trends in the use of the shakuhachi in cross-cultural musical dialogues. Are, for example, more non-Japanese composers pro rata using the shakuhachi in ensembles with western instruments than Japan composers? In the second survey (Instrumentation trends in cross-cultural shakuhachi composition), I will focus upon the commonality of specific instrumental combinations with reference to its potential timbral architecture in a cross-cultural context. Together these two surveys enable a broad picture to be constructed of the central theme of this

thesis; timbre as a prominent feature of cross-cultural musical identity as expressed through the instrumentation with which the instrument has been combined. In addition they also demonstrate the growing internationalism and diversity of cross-cultural shakuhachi composition that has emerged over the past sixty years.

Both surveys have been constructed via databases in Microsoft Excel 2008 and are in the file "Shakuhachi composition databases.xlsx" on CD 1, track 1. The file contains seven spreadsheets entitled:

1. Instrument trends database: survey one – international instrument trends.
2. Instrumentation database: survey two – instrumentation survey with taxonomy.
3. Instrumentation database 2: survey two – instrumentation survey with filters.
4. Total freq. (frequency): survey two – total frequency with which all instruments have been used with the shakuhachi.
5. Sources: internet sources used in the databases.
6. Country abbr. (abbreviations): abbreviations used to indicate nationality.
7. Instrument key & abbr. (abbreviations): key, definitions and abbreviations used to indicate instrumentation/performance media used in the surveys and main document.

The survey databases are on the first three sheets. The first survey, of international trends, is on sheet one (Instrument trends database). The second survey, of instrumentation, is on sheets two (Instrumentation database) and three (Instrumentation database 2). Selected survey findings are tabulated and discussed in the text; to represent all the findings would be impractical and too substantial for the present purposes. I will begin with the origins and evolution of the two surveys and their sources, before moving onto each survey in turn with an explanation of the database construction for that survey and discussion of the musical questions this posed, followed by discussion of the findings. I will conclude with a summary of the findings and further questions, issues and potential

research generated by these trends and more generally by the application of such statistical methods.

3.1.1 The evolution of the databases and surveys

Although these databases used for the surveys have come to be a source of instrumental analysis in their own right, they did not originate with this aim. Originally, a single database was established in order to:

1. Compile a list of works from disparate data sources in one place with systematic and data representation that facilitated comparison.
2. Assess which large-scale orchestra and shakuhachi works, preferably by Japanese composers, would be feasible to access, such as those published by international publishers or prominent publishers in Japan.

In the event, works published by Japanese composers were not as easy to obtain as I had hoped, with the exception of Takemitsu's *November Steps* (1967). As a result, I had to re-think my research focus on large-scale orchestral works by Japanese composers, so I broadened my scope out to any musical work using western instruments and shakuhachi by Japanese and non-Japanese composers from which a selection would subsequently be sought for musical analysis. Expanding my research parameters to any musical work for shakuhachi and western instruments generated a large amount of diverse data, which I added to the original database. Broadly, the sources indicated basic biographical details about the composer, the title and duration of the composition, and the instrumentation.

In the process of so doing I began to see possibilities for statistical analysis from the database itself, rather than the database simply being a repository of shakuhachi composition information. In particular, the database could be used to assess the timbral composition of common and less common instrument combinations and these findings could then be correlated with musicological and perceptual perspectives while also gaining an overview of the prevalence of shakuhachi compositional activity on the international scene relative to the scope

of the data. This latter goal proved the genesis of the first survey of cross-cultural instrumentation trends.

Although such statistical analyses are very different to the musical analyses of scores and recordings undertaken in subsequent chapters and are unusual both in ethnomusicology and musicology (Nettl 2005:92–112, Nettheim 1997:43–105), they nonetheless have a role in providing an overview of compositional activity across a large international cohort of shakuhachi music-makers. Indeed, these are the first such surveys of shakuhachi compositional activity to incorporate both Japanese and non-Japanese composers and contemporary composer-performers of the shakuhachi in combination with western instruments.

Thus they provide the first broad survey of international shakuhachi cross-cultural composition from the post-war era to the present day. From the sources used to compile the databases I have been able to obtain a rich variety of works that illustrate the diverse, non-traditional musical environments in which the shakuhachi has been used, perhaps in fulfilment of Izawa's (Eppstein 1994:4) ideal of combining western and Japanese traditions, and as testament to widespread interest in exploring cross-cultural domains between the two traditions.[88]

3.1.2 Sources for the databases and surveys

The principal sources for these surveys are the three articles (Benitez and Matsushita 1994, Samuelson 1994, Iwamoto 1994), the internet, and Minoru Miki's book, *Composing for Japanese Instruments* (2008). As these sources were discussed in the previous chapter and outlined in Chapter 1,[89] I shall not repeat the discussion here other than to remind the reader that the articles were all published in 1994 and document compositions for shakuhachi in Japan, America and Europe from the post-war era to the early 1990s, of which Benitez and Matsushita's compilation of Japanese composers is by far the largest. It is also worth noting that Benitez and Matsushita (1994:239), and Samuelson (1994:88)

[88] See Chapter 2, §2.2.2.

[89] See Chapter 2, §2.3.

specified start dates for their listings, and the former also qualified an end date, while Iwamoto specified neither, although he broadly covers the same period.

The extraordinarily diverse and prolific composer Minoru Miki has been a significant influence in developing new compositions, styles and methods of writing for traditional Japanese instruments, as seen in his book *Composing for Japanese Instruments* (2008). From the compilation of his compositions included in his text (2008:207–227) I have sourced sixty-eight shakuhachi compositions, cross-referenced with the thirteen listed in the Benitez and Matsushita (1994:247–248) compilation. Whilst many of Miki's compositions were written after the publication of the Benitez et al. article, some of his compositions had been written during the period of their research, but were not included in their publication.

Although I have been able to research more recent shakuhachi composers online, this means of research and the wider purpose of my Ph.D. research differed from the work of Benitez et al. (1994), Samuelson (1994), and Iwamoto (1994) in that I am focusing on the use of timbre in cross-cultural composition involving the shakuhachi, rather than solely surveying numbers of composers and compositions using the shakuhachi in particular regions/countries. Furthermore, my research was not undertaken in the same locations as these surveys, nor via the same methodology of a postal questionnaire, hence my listings of contemporary composers are not on a parity with the aforementioned authors.

Despite my differing aims, I have employed similar parameters, discussed further below, with one exception. Samuelson (1994:88) excluded composer-performers who were not otherwise composers. While I have focused on western contemporary composition using the shakuhachi and have not pursued international *honkyoku* or genres such as pop or film music, I have been more flexible about including composer-players. Furthermore, as I have been applying musical criteria such as the exclusion of traditional repertoire, many of the composer-players that I have researched are also composers with non-shakuhachi works to their name.

As outlined in Chapter 2, recent shakuhachi composition outside Japan has evolved over the past few decades and has been used in a variety of unconventional styles as seen in the seventy-three compositions by seventeen contemporary composers. These recent compositions have been written by an international cohort of composers and composer-players based in the U.S., Australia, the U.K., Europe and Japan and represent a diversity of approaches to the way in which the instrument is used. Whilst many of the compositions date from the nineties onward, some were written earlier, but have not been included in any previous surveys, such as the works by the Australian composer Ann Boyd.[90] Other composers included in this database have already been listed in previous compilations; I have listed only their new compositions.

In addition, over 40% of the recent compositions have been written by Marty Regan (b.1972), whose composition *Forest Whispers…*(2008) will be discussed in greater detail in Chapter 8. Whilst Regan may have written a high proportion of these compositions, I have not separated them from other contemporary works as they form part of this recent corpus mostly written by non-Japanese composers or Japanese composers resident outside Japan and the total numbers of compositions is not large. Overall, this corpus of recent compositions follows on from where the previous compilations left off, which for Benitez and Matsushita (1994:239) was December 1991. For Samuelson and Iwamoto their 'cut-off' points are the date of the latest composition they have included, which was 1990 (Samuelson 1994:93) and 1992 (Iwamoto 1994:42).

The compilation of works by Benitez and Matsushita (1994), Samuelson (1994), and Iwamoto (1994) present lists of compositions, with each entry including the name of the composer and life dates insofar as known, the title, date, and duration of the composition, and its instrumentation, relative to the information available to the researchers. While Iwamoto includes most of the composition information detailed above, he does not include life dates for the composer. In some cases I

[90] See CD 1, track 1 (shakuhachi compositions database.xlsx) spreadsheets 1, 2, 3, and spreadsheet 4.

have been able to obtain this information for inclusion in the databases, however it has not always been available. It is also worth remembering that at the time the research for these three compilations was undertaken, the internet was in its infancy, so the researchers used methods of communication now considered older; sending and receiving information via postal systems and phones, rather than through emails and websites.

Even though one would expect there to be more composers from Japan for a Japanese instrument, the data is heavily skewed towards favouring that finding as we have substantially more data for shakuhachi composers from post-war Japan than from anywhere else or any other time period. Benitez et al. (1994) requested information from 315 composers, from which they obtained data for 145 composers and 538 compositions. By contrast, Samuelson asked c.100 composers and was able to elicit data for 23 of them, while Iwamoto accrued data for 17 European, or European-based, composers and 35 compositions. It is unclear how many composers Iwamoto asked in his brief survey of post-war Japanese composers using the shakuhachi.

For the resultant data, the numbers of composers and compositions obtained should not be taken as an indicator that other composers asked did not write for the shakuhachi, but rather that only some composers responded or that information on their compositions could be sourced by other means. The same caveats apply to my own research; while these sources and my internet research provide a diverse set of compositions involving shakuhachi, we should not assume that they are a comprehensive listing of every composer or composition, although they do provide an extensive representative sample from which questions of instrumental usage, increases in composition and so on, can be assessed.

When researching these compositions online, there was considerable variation in the presentation of information. If I could obtain the name of the composer, the title of the work, the instrumentation and either the year in which the work was written, or the life dates of the composer, or any other evidence that the composer was currently alive and active then that composer was included. Clive Wilkinson is

one such example; he is listed in the Iwamoto (1994:43) survey and is active as a composer and lecturer at the Northern School of Contemporary Dance in the U.K.,[91] however his D.O.B and the dates of some of his shakuhachi compositions have not been given in any of the available online sources for him. His online sources are listed in the sources list in the Microsoft Excel file "Shakuhachi composition databases.xlsx" on CD 1, track 1 spreadsheet 5.

In total, therefore I have amassed a diverse collection of information on instrumentation in shakuhachi composition comprising an international cohort of 197 composers and 753 compositions derived from sources in which information is presented in myriad forms, and focused around the 1970s and 1980s. The corresponding decrease in data from the 1990s onward should not be taken as an indicator of a decrease in compositions but rather as a correlation with availability of sources within the constraints of this study, particularly as the current evidence of widespread shakuhachi use in the variety of genres outlined in the previous chapter suggests that cross-cultural compositions for the shakuhachi are very much alive and well.

3.1.3 Defining database parameters: questions of genre and identity

As the database grew to include 753 compositions and multi-national composers, the need to define parameters for inclusion became evident. These parameters were based upon the survey parameters of Benitez and Matsushita (1994), Samuelson (1994), and my study focus of cross-cultural composition:

Database inclusion parameters:

1. Combination of shakuhachi with western instruments.
2. Combination of shakuhachi with other non-Japanese instruments.
3. Use of shakuhachi in a western compositional idiom, including improvisatory approaches but excluding traditional, popular, folk and film musics.

[91] https://www.nscd.ac.uk/news/staff/clive-wilkinson-lecturer-in-creative-and-contextual-studies/ (25 Jul. 2015).

4. Use of shakuhachi with Japanese instruments in a western compositional idiom including improvisatory approaches but excluding traditional, popular, folk and film musics.

As well as defining criteria for inclusion, I also had to consider how my focus on the internationalism of the composers and their instrumentation could be defined, extracted, and represented. Furthermore, these questions of identity raised questions about the genre definition of the works, particularly over the inclusion of *shin-hōgaku* (new traditional Japanese music) and *gendai hōgaku* (contemporary traditional music),[92] as these genres overlap with contemporary compositions. I have applied the parameters used by Benitez et al. (1994:239) and Samuelson (1994:88) in excluding known *shin-hōgaku*.[93] If the Japanese chamber ensemble had unconventional instrumentation or other features and/or used non-Japanese instruments then it was included insofar as its lack of convention could be deduced from the data.

However, where a *shin-hōgaku* work has been written by a non-Japanese composer, even if traditional in style, it is arguably cross-cultural and even unconventional. Marty Regan (b.1972-) is one such example[94] . He has written works solely for traditional Japanese instruments and studied under Minoru Miki (1930–2011), the prominent *shin-hōgaku* composer. Here, questions of cultural property and authenticity come to the fore; who 'owns' the tradition - the westerner who has studied it for years and knows it well, or the Japanese person who may never have had a close encounter with the instrument or the tradition? Equally the question of western appropriation in Japan could also be considered, but further such exploration must wait for another time. For the purposes of the

[92] According to Bonnie C. Wade (2014:117) the term *gendai hōgaku* was invented by NHK (the national TV broadcaster) in 1959 for television programming purposes.

[93] Benitez et al (1994) refer to *shin-hōgaku*, there is, however, no clear convention on this; the term is used interchangeably with *gendai hōgaku.* The latter may be seen as delineating post–war composition from cross-cultural composition during the early twentieth century, however *gendai hōgaku* is less common so I have followed the authors' precedent.

[94] http://www.martyregan.com/works/ (29 Jun. 2015).

database parameters, if a non-Japanese composer of *shin-hōgaku* was considered cross-cultural by default, the parameters of the composition itself determined its inclusion in the database; if it was known *shin-hōgaku* i.e. composing new music for traditional instruments in traditional performing contexts and ensembles, it was excluded.

Boundaries between *shin-hōgaku* and new compositions were particularly blurred in the music of the Japanese composer Minoru Miki (1930–2011). He grew up in a family with strong connections to traditional music but trained as a composer in western classical music and had no experience in "composing for traditional music" until he received requests for such compositions in the early 1960s (2008:XX),[95] on the basis of which he went on to write many compositions for traditional instruments. The instrumentation used in many of these compositions suggests *shin-hōgaku*, however the combination of traditional instruments is unconventional as are the compositional language and style. Hence I have included Miki's shakuhachi compositions, although I have designated them as a distinct group separate from the other compilations for reasons of duplication subsequently discussed.

Inasmuch as *shin-hōgaku* instrumental combinations are represented, they are included as a comparative measure with the focal group of this study, cross-cultural combinations of the shakuhachi with *western* instruments or in a western musical form. Pragmatic concerns also informed the parameters of the database; if all *shin-hōgaku* works by non-Japanese composers had been included in the database, this would not only have vastly increased its size, but would have also obscured the primary focus of shakuhachi-western combinations or the use of the shakuhachi in a western or non-traditional musical style.

Questions of nationality also arose in the databases' construction. Initially, the inclusion of nationality as a parameter was straightforward when considering the composers listed in the Benitez et al. (1994), Samuelson (1994), Iwamoto (1994)

[95] Bonnie C. Wade's Foreword to Miki's book (2008:XIX-XXI), *Composing for Japanese Instruments*.

and Miki (2008) sources, as they were respectively Japanese, American, and European. With the inclusion of more diverse data sources, ascribing nationality became more problematic. How for example, should one ascribe nationality to Japanese composers resident in countries other than Japan and/or having dual nationality such as Kojiro Umezaki,[96] Japanese-Danish by birth, raised in Tokyo, and currently resident in the U.S? Sometimes this would be clarified via websites, however where the national identity/identities of a composer remains unclear I have taken the current residency as the nationality. In the database, nationalities (countries) are represented by commonly used two-letter acronyms (UK – United Kingdom, JP – Japan), the definitions of which are listed on the Excel database sheet entitled 'Country Abbreviations'.

3.2 Survey one: instrumentation trends in cross-cultural shakuhachi composition

3.2.1 Delineation of the trend categories

Through this survey I examine instrumentation trends in cross-cultural shakuhachi composition, through a framework of instrumental categories applied to the data listed in the sources outlined above and discussed in the previous chapter. These categories have been developed with reference to the cross-cultural, regional, and national identities of the instrumentation in the sources, to the traditional performing genres (*honkyoku* and *sankyoku*) of the shakuhachi outlined in Chapter 2, and to the instrumentation indicated in the sources:

1. **Shakuhachi** - solo shakuhachi.
2. **Traditional** – shakuhachi with koto and/or shamisen.
3. **Japanese Traditional** – shakuhachi combined with more than one shakuhachi and/or other Japanese instruments with which the shakuhachi would not usually be combined in traditional repertoire.

[96] http://kojiroumezaki.com , http://www.silkroadproject.org/ensemble/artists/kojiro-umezaki (7 Jul. 2015).

4. **Western** - shakuhachi with western instruments.
5. **Western Japanese Traditional** – shakuhachi with western instruments and traditional Japanese instruments.
6. **Electric/ electronic** - shakuhachi with electric/ electronic instruments.
7. **Western Traditional Electric/electronic** – shakuhachi with electric/electronic western and/or Japanese traditional instruments.
8. **Other** - shakuhachi combined with other musical instruments/ traditions.

Of these eight categories, the vast majority of compositions fall into the first five, with the remaining three categories accounting for very few compositions. The first category, Shakuhachi solo, enables us to assess the number of these composers who have chosen to reference the soloistic shakuhachi tradition, even if the musical form has changed to *yōgaku*. The second category, Traditional, refers to the musical tradition in which the shakuhachi is combined with the koto and/or shamisen, usually within *sankyoku*. As *sankyoku* music is an established tradition that precedes Japanese post-war composition, the combination of shakuhachi and koto in particular is common and well-known to those versed in the music of Japan; however a reader unfamiliar with Japanese music might be unaware of this and so might miss the unconventional use of the shakuhachi with other Japanese instruments

Moreover as the combination of shakuhachi and koto is common and established, it provided a useful basis from which composers could work when exploring the use of these instruments in contemporary composition. The fourth category, Western, is the shakuhachi in combination with western instruments, regardless of the number of shakuhachi used, while the fifth category refers to the shakuhachi in combination with western instruments and any other Japanese instruments, whether those Japanese instruments are traditionally used with the shakuhachi or not.

The sixth category, Electric/electronic indicates the combinations of the shakuhachi with tape or computer, for example, while the seventh category, Western Traditional Electric/electronic, refers to electric/electronic resources that

have been combined with the shakuhachi and other western and/or Japanese instruments. Originally this seventh category was subdivided into a few categories distinguishing whether the electric/electronic resources and shakuhachi had been combined with western or Japanese instruments, or both. As the number of compositions involved is very small, it was expedient to group these compositions together into one category, Western Traditional Electric/Electronic, referring to compositions that include shakuhachi and electric/electronics with western and/or Japanese instruments, which the reader can then cross-reference with the database. The final category, Other, accounted for the shakuhachi in combination with Japanese instruments and musical instruments from other traditions, and amounted to only 22 compositions in the entire corpus.

These categories and the resultant categorical analysis are detailed in the cross-cultural instrumentation trends sheet of the database, entitled "Instrument trends database" on spreadsheet 1 of CD 1, track 1. Composers are listed by row in the database, while the regional or national identity of the composer, the source for the composer, and the categories are indicated by column. With regard to nationality/ regional identity, in some cases, the composer has dual nationality or long-term residency in another country. In these cases, I have indicated both national affiliations.

The composer listing in the database is ordered by source, i.e. composers listed in Samuelson (1994) are all grouped together. Each composer is listed by source, national or regional identity, name, and the total number of their shakuhachi compositions listed. This total is divided between different instrumentation categories as appropriate, so if a composer has three compositions listed, the three would be listed in the total category, while they would be allocated to the relevant categories as demonstrated in the example below. These categories have been applied to each composer in each source and checked against the total number of their compositions listed in that source.

In the example from the cross-cultural instrumentation trends database shown below, the source is Benitez and Matsushita (1994:242), the region is Japan and

the nationality is Japanese; the composer is Hisayoshi Andō, who has one composition using shakuhachi, as listed in the Benitez et al. (1994:242) compilation and that composition has been categorised as Western because the instrumentation used is shakuhachi with western instruments. The size of the database has been adjusted to fit into this text document.

Figure 3.1: Sample entry: cross-cultural instrumentation trends survey

Source	Region/ Country	Nationality of Composer	Composer	Total No. of Composi-tions listed in source	Shakuhachi	Traditional	Japanese Traditional	Western	Western Traditional	Electric/ electronic	Western Traditional Electric/ electronic	Other
Benitez & Matsushita	Japan	JP	Andō, Hisayoshi (1938-)	1				1				

In the event, the composition, *Essay* (1972) uses two shakuhachi with cello, however this level of detail, where the specific instrumentation is detailed, is the purview of the second survey.

From these entries the total number of compositions in that category is calculated and is cross-referenced with the total number of compositions in that source. These source totals indicate the instrumentation trends, which are tabulated. In the subsequent discussion, each category is considered in turn. In addition to providing the total numbers for composers, I have also presented the totals as percentages using an online calculator,[97] so as to facilitate a comparative parity across differentials of group sizes represented in the sources.

With such a large, international body of information, some duplications of composers and works were likely, however there were fewer than expected and the manner of duplication varied; on some occasions it was the composer and the work, whereas in other cases it was the composer but not the work. The most problematic duplications were those with the same work organised differently in different compilations, and this emerged as a particular issue when categorising the works of Minoru Miki (2008:207–227), which will be discussed in due course. In cases with duplications of composer and work, the solution was

[97] http://www.percentagecalculator.net (30 Jan. 2015).

straightforward; allocate the work to one source group, but attribute both sources in the source column.

In several cases composers and their works were listed in both the Benitez and Matsushita (1994) compilation and the Iwamoto survey (1994); here I included them in the Iwamoto listing rather than the Benitez et al. collection, given that the work has been explored and performed outside Japan, here in a European context, and is by a composer with European connections, thus enabling a better picture of shakuhachi composition on the international scene and facilitating a more accurate comparison of composition types. One such example would be Jō Kondō,[98] who has undertaken significant and lengthy compositional residencies in Britain and the U.S., and who is included in the Iwamoto (1994:13,42) and Benitez et al. (1994:246) surveys with his sole shakuhachi composition *High Song* (1987) for shakuhachi and soprano flute in G.

One composer, Jill Haas, was listed twice in Iwamoto's survey and in Samuelson's but with a different work in each source (Iwamoto 1994:42, Samuelson 1994:90). This has been noted in the database, in the Source column with the annotation 'IW – dup composer only'. Duplications of composer *and* work in the database are indicated by an annotation in the Source column giving the initials of the other source (BM = Benitez and Matsushita; IW = Iwamoto; S = Samuelson), while the multiple duplications occurring in the works of Minoru Miki are discussed below.

While the alternative source is attributed in the Source column, the alternative listing of composer and works is not included in the Instrument trends database set for the reasons outlined above. The greatest number and most problematic duplications concerned 13 works of Minoru Miki listed in the Benitez et al. (1994) source, which are duplicated among the 68 relevant shakuhachi compositions detailed in the compilation of his compositions in Miki's recent book *Composing for Japanese Instruments* (2008). In some cases the same works were individually

[98] http://www.uymp.co.uk/composers/jo-kondo, http://www.edition-peters.com/composer/Kondo-Jo (30 Jan 15).

listed in Benitez et al. but not listed individually in Miki's compilation, rather, they were sections of a larger composition.

In one case, the duplicate work had a different title and superficially distinct instrumentation such as the example of the Benitez and Matsushita (1994:248) listing of *Aki no Kyoku* (1980) for shakuhachi and 20-string koto, which in Miki's list (2008:207-227) is entitled *Autumn Fantasy* (1980) and is for shakuhachi and 21-string koto. As *Aki no Kyoku* translates as Autumn Music, and as Miki's invention of the diatonic 20-string koto in 1969 was found to be more effective with 21 strings (Miki 2008:126), it is safe to assume that this is the same composition, at least for the purposes of instrumentation categories. Given the choice between the Benitez et al. listing and Miki's compilation, I have taken Miki's recent text as the definitive listing, and as he was so prolific and has the most duplication of material, I have undertaken a separate categorisation of his works, and have adjusted the surveys and databases as necessary. His prolificacy would skew the numerical comparison and thus the overall picture, as would the number of duplications of his work.

Within the classifications, there were individual works that did not easily fit into any of the categories, such as works using shakuhachi and percussion. In the vast majority of compositions listed the percussion is unspecified, thus it is impossible to identify whether the percussion is western, Japanese, both, or including percussion from elsewhere. In the overwhelming majority of these compositions this was not a problem as there were other instruments used by which the work could be classified, or the percussion was listed as J-perc (Japanese percussion).

In the few works using solely shakuhachi and percussion, I have listed them under Western Traditional, so that western and Japanese percussion possibilities are covered. Two works are listed as using shakuhachi, koto and percussion, and shakuhachi, *sangen* and percussion respectively. Again, I have listed these compositions under Western Traditional to accommodate the potential western percussion. In ensembles with a larger variety of Japanese instruments and also

percussion, I have identified the composition as Japanese Traditional, as the majority of the instruments fell into the Japanese Traditional category.

While works using the common combination of one or two koto with shakuhachi have been grouped under Traditional, works that use a large collection of koto with or without a soloist, and no other instruments, have generally been grouped under Japanese Traditional, as the instrumentation is more distant from the *sankyokyu* format. A further such parameter was needed for compositions using more than one shakuhachi, but no other instruments. These works have been also listed under Japanese Traditional, whether they use two shakuhachi or many. For large shakuhachi ensembles this was straightforward, as such an instrumentation is not conventional, however works using two shakuhachi could have either been grouped under shakuhachi or under Japanese Traditional, as *honkyoku* is generally solo and we are focusing on the non-traditional genre of *yōgaku*.

3.2.2 Analysis of the categories

Having established these categories and assigned works to them, I used Microsoft Excel's Sum function to calibrate totals from each trend category, the results of which are tabulated below. The table identifies the numbers of compositions for each category in each source and the regional/national focus of that source. In order to fit the results within portrait layout parameters, I have abbreviated the column headings of region/nationality, source and type of result (quantity or percentage):

Table 3.1 Summary of comparison headings

Region/ nationality	**Abbr.**	**Sources**	**Abbr.**	**Measurement**	**Abbr.**
International	Int.	Benitez and Matsushita (1994)	BM	Quantity	Qty.
Japan	JP	Samuelson (1994)	RS	Percentage	%
Europe	EU	Iwamoto (1994)	IW		
U.S.A.	US	Miki (2008)	MM		
		Recent compositions Henderson (2015)	RC		

Table 3.2 Cross-cultural trends by quantity and percentage

Regions	JP	JP	US	US	EU	EU	JP	JP	Int.	Int.
Sources	BM	BM	RS	RS	IW	IW	MM	MM	RC	RC
Instrument Categories	Qty	%	Qty	%	Qty	%	Qty	%	Qty	%
Shakuhachi solo	94	18	13	26	9	25.7	2	2.9	9	12.3
Traditional	134	25.7	2	4	1	2.9	6	8.8	6	8.2
Japanese Traditional	112	21.4	6	12	--	--	24	35.2	7	9.6
Western	99	19	22	44	14	40	2	2.9	27	37
Western Traditional	61	11.7	2	4	1	2.9	21	30.9	9	12.3
Electric/ electronic	12	2.3	2	4	6	17.1	--	--	6	8.2
Western Traditional Electric/Electronic	6	1.1	2	4	2	5.7	2	2.9	2	2.7
Other	1	0.2	1	2	2	5.7	11	16.2	7	9.6
Total	523		50		35		68		73	

* Percentages have been rounded up to 1d.p.

3.2.2.1 Shakuhachi solo

Composers throughout the entire cohort have composed for the shakuhachi as a solo instrument; however it is immediately noticeable that the highest percentage pro rata of solo compositions is not among the cohort of Japanese composers, but among 26% of North American (Samuelson 1994) composers and 25.7% of European (Iwamoto 1994) composers from the post-war era to the 1990s. Among this contingent, whilst the composers may have referenced the soloistic tradition of the shakuhachi, they will have done so in a non-traditional, contemporary manner else they would not have been included in Samuelson's or Iwamoto's compilations.

One such example is Frank Denyer's *Unnamed* (1997) 45" composition for solo shakuhachi, which explores the timbral tessitura of the instrument through an unconventional approach. Fewer composers of the recent cohort have pursued

solo exploration, although whether there are any perspectives in common on solo composition amongst them might be a consideration for future research.

While Samuelson's and Iwamoto's compilations have the highest percentage of solo shakuhachi works, in real terms Japanese composers have written the most for shakuhachi solo in a *yōgaku* style (Benitez and Matsushita 1994); the exploration of new influences and repertoire by innovators such as Tozan Nakao (Takahashi 1990), and later through experimentation by composers such as Takemitsu (Galliano 2002:149–208, 2002:20–37; Herd 2008:376–381; Burt 2001; de Ferranti and Narazaki 2002[99]) had paid off. By comparison, Minoru Miki has written very little for solo shakuhachi, although he has made extensive use of the instrument in Japanese instrument ensembles, as we will see.

3.2.2.2 Traditional

This category referred to the traditional combination of the shakuhachi with the koto and shamisen in the genre known as *sankyoku*. By far the largest cohort in this category was Japanese (25.7%), although these works would not have been included in Benitez and Matsushita's list unless the instrumentation, arrangement or form was in some way unusual (Benitez et al. 1994:239). Therefore while the composers may have been able to use an established instrumental habitus, they also felt able to do so in an unconventional manner and did so in considerable numbers. By comparison Minoru Miki's corpus includes relatively few works for this traditional ensemble, perhaps due to his focus on new instrumental combinations in *shin-hōgaku*. Among the compositional cohort outside Japan, relatively few composers have referenced this conventional trio, possibly because these composers are more removed from the weight of historical convention (Denyer 1994:47) and are focusing on each instrument individually.

3.2.2.3 Japanese Traditional

This category denoted instrumental combinations unconventional among Japanese traditional musics. It would seem that the compositional flexibility of Japanese

[99] De Ferranti and Narazaki's 2002 publication, *A Way a Lone: Writings on Toru Takemitsu*, is a collection of essays devoted to Takemitsu. See bibliography for details.

traditional musics in Japan's post-war era has left its legacy in the comparatively high numbers of Japanese Traditional compositions among Benitez and Matsushita's (1994) cohort, giving a clear indication of the active use of *hōgaku* instruments in *yōgaku* styles in recent decades. Proportionally, the highest number of Japanese Traditional compositions have been written by the renowned *shin-hōgaku* composer Minoru Miki (1930-2011); 35.2% of his output combined traditional Japanese instruments in unconventional groupings and musical forms compared to only 21.4% amongst 143 other Japanese composers, which is perhaps, an indication of his emphasis on *shin-hōgaku* composition.

Outside Japan, the incidence of unconventional traditional Japanese instruments grouped with the shakuhachi drops among the U.S. and international Recent Composers cohort and is non-existent in Iwamoto's European contingent. Although these unconventional ensembles are much less common outside Japan, they are still more common than the historic Traditional category; more non-Japanese composers use unconventional ensembles than conventional ones.

3.2.2.4 Western

Pro rata, the highest numbers of combinations of the shakuhachi with western instruments is among the U.S., European, and the international Recent Composers cohort, (44%, 40%, and 37% respectively), compared to only 19% of Japanese composers and 2.9% of Miki's works. In other words, composers outside Japan have been experimenting more with shakuhachi/western combinations.

Amongst these non-Japanese composers from the post-war era onwards the compositions are fairly evenly distributed; most composers have written between one and three compositions, although a few composers (Marty Regan, Anne Boyd, Frank Denyer, and David Loeb) stand out as having written more. Again, within the Japanese contingent, such compositions are fairly evenly spread; there is no obvious cohort responsible for most of the compositions, although as before, composers who have written more (Ryōhei Hirose, Fujio Okabe, Katsutoshi Nagasawa, and Kazuhiko Hattori) are noticeable.

The smaller proportion of such compositions amongst the Japanese group was more unexpected, given the introduction of western instruments during the Meiji era with Izawa's ideal of cross-cultural combinations, although this is perhaps a reflection of actual practice. Furthermore, Minoru Miki (2008:207-227) has contributed relatively few shakuhachi–western combinations to his oeuvre although he has written considerably more Japanese instrument-western combinations in which the shakuhachi is part of the ensemble.

3.2.2.5 Western Traditional

By far the largest proportion of compositions in which Japanese instruments have been combined with western instruments have been written by Minoru Miki (30.9%), compared to 11.7% among the overall Japanese cohort and 12.3% among the international Recent Composers. Otherwise, very few composers from the U.S. and European contingent experimented with combining the shakuhachi and other Japanese instruments and western instruments from the post-war era to the 1990s. Possibly this is due to access to and knowledge of these instruments during this period; to unravel the international transmission of other Japanese traditional musics outside Japan would require further investigation. Thus from among the total cohort in this category, two names are prominent: the late Minoru Miki with twenty-one such compositions, and his American protégé Marty Regan with eight compositions.

3.2.2.6 Electric/electronic and Western Traditional Electric/electronic

Across all groups, the use of the shakuhachi with electronic compositional approaches, with or without western, Japanese, or other instruments, is noticeably less than for acoustic ensembles, despite the increase in electronic compositional methods from the 1960s onwards. This scarcity is surprising given the growth of music technology and its use by experimental composers (Griffiths 1994:146–159) throughout the period when most of these works were written. Originally, these two categories were further demarcated according to whether composers had combined shakuhachi-electronic with Japanese or western instruments, however, due to the low numbers against efficiency of data presentation, I merged these categories into one.

Pro rata, European composers have engaged in shakuhachi-electronic works the most frequently with 17.1% compositions for shakuhachi-electronic combinations and 5.7% of shakuhachi-electronic and western/Japanese combinations, followed by American composers with 4% in both categories. Recent international composers have contributed 8.2% and 2.7% to shakuhachi-electronic and shakuhachi-electronic and western/Japanese respectively. The lowest proportion is from the Japanese cohort (2.3% and 1.1%) to the shakuhachi-electronic and shakuhachi-electronic-Japanese/western respectively. Minoru Miki has no shakuhachi-electronic combinations, although he has contributed to the shakuhachi-electronic-Japanese/western category (2.9%).

Again, these compositions are spread fairly evenly amongst composers, with no one composer responsible for all such compositions within a group, although composer-performers such as the Danish-Japanese Kojiro Umezaki (resident in America with an avant-garde Jazz-electronic approach) are responsible for half of the shakuhachi-electric compositions among the Recent Composer cohort. Further research might elucidate as to why Europe has contributed more shakuhachi-electronic combinations than Japan.

3.2.2.7 Other

Amongst most groups the combination of the shakuhachi with instruments from traditions other than western has been low, with the exception of Minoru Miki and Recent Composers, who have contributed 16.2% and 9.6% of compositions respectively. For Miki, this was an area in which he invested much effort, with the creation of his Orchestra Asia, for example, comprising instruments from a variety of East Asian and other Asian traditions (2008:207-227). Of the Recent Composers, such compositions and improvisatory performance events are the purview of Marty Regan, Jeffrey Lependorf and Kojiro Umezaki.

The time-scales of the Benitez et al. (1994), Samuelson (1994) and Iwamoto (1994) contingents compared to the Recent Composers cohort could have contributed to the increase; current composers are active in a global world with increased access to a multitude of musics. Furthermore, international composers

interested in Japanese musical traditions are more likely to be interested in music traditions from elsewhere. Denyer, for example, has an academic background in East African music and composed many other works involving non-western instruments, some with shakuhachi, which are listed in Iwamoto's survey (Denyer 1994:41).

3.2.3 Discussion

Overall, we can see that there have been plenty of compositions using western instruments throughout the compositional cohort, both In Japan and on the international scene. Whilst the percentage of international composers using western instruments in combinations with the shakuhachi is higher, pro rata, than in Japan, it is still a healthy tradition within Japan. As expected more composers in Japan have used the shakuhachi in combination with other Japanese shakuhachi instruments than is the case elsewhere; as suggested previously, this could be influenced by the dissemination of other Japanese traditions outside Japan. Nonetheless, international and Japanese composers have experimented with using the shakuhachi in Japanese instrument combinations with which the instrument would not normally be combined, including ensemble works also incorporating western instruments.

From all of these compositions, there has been considerable experimentation with the shakuhachi in new compositional contexts, so we can now turn our attention to the second survey focusing on specific instrumental combinations and their potential timbral mechanisms.

3.3 Survey two: cross-cultural instrumentation in shakuhachi compositions

This is the second of the two surveys of a large and diverse compositional cohort, outlined in the chapter introduction. The previous survey examined Japanese and international trends in cross-cultural instrumentation used in shakuhachi compositions. From this preliminary survey a picture emerged of more non-

Japanese composers pro rata using the shakuhachi with western instruments and Japanese instruments with which the shakuhachi would not conventionally be combined. We now turn to a more detailed consideration of the potential timbral architecture of these instrumentation combinations.

The database analysis has been extracted from the databases on spreadsheets 1 and 2 in the Microsoft Excel 2008 document "shakuhachi composition databases.xlsx" on CD 2, track 1. Spreadsheets 1 and 2 are entitled Instrumentation database and Instrumentation database 2 respectively. Potentially this analysis could include the whole dataset, or even run to a complete study, although there is not the space to address such a comprehensive endeavour here. Instead I will focus on the most common instruments, three of which are represented in the music analysis of the subsequent chapters.

In most ways, the construction of this database is identical to the previous database, with composer, nationality, title of work and instrumentation. The difference is the addition of a detailed breakdown of instrumentation, with each instrument type allocated to a column and a '1' entered into the column if that instrument is included in the instrumentation for that composition, either as a principal instrument or an alternative. It is from this instrumental detail that the analysis is extracted, however the organisation of this instrumental detail proved an analytical task in its own right, posing musical and extramusical questions.

3.3.1 The database taxonomy

As the database grew, the need for a systematic ordering of the instrumentation became evident, given the representation of instruments from different traditions, cultures and organologies. Moreover this system needed to represent cultural identity and organology of the instrument in conjunction with the musical inclusion parameters discussed in the previous survey. I therefore developed an ordering system informed by the regional and national identity of the instrument, western orchestral instrument families, and the Sachs and Hornbostel (1961 [1914]) organological taxonomy. These parameters enabled the potential timbral

combination of the instrument to be highlighted whilst retaining its cultural identity, for cross-cultural (or otherwise) comparison:

3.3.1.1 The ordering system parameters:

1. Nationality of composer.
2. National or regional identity of an instrument (for cross-cultural purposes).
3. Levels of organological and orchestral grouping with which to order the instruments.

Denoting the regional or cultural identity of an instrument was comparatively straightforward, viz.: Japan, China, Korea, Mongolia, Western, India, Indonesia, and the Middle East. Designating categories for instrumental ordering within regional parameters was more problematic. The purpose in ordering the large collection of instruments was to facilitate the ease with which the database beholder could a) access the organological-musical affiliations of the instrument, and b) compare cross-cultural use. In western art music, instruments are grouped into wind, strings, percussion and so forth; these groupings, however, are not always an effective representation of instruments from other traditions and do not represent other performance categories such as voice or multimedia music. Moreover, western orchestral groupings are not very detailed and so do not indicate musical parameters such as method of play, which are important in denoting timbre.

In ethnomusicology and historical musicology, a commonly used method of instrumental organisation is the Hornbostel and Sachs system (1961[1914]). Whilst it is not ideal (Baines and Wachsmann 1961:3–4, Kartomi 2001:285), the system divides instruments into broad organological groupings (aerophone – wind, chordophone – strings), and subdivides those groups according to organological criteria. However, in some cases, the criteria do not make detailed reference to method of play until quite far down in the classification hierarchy, such as distinguishing between a bowed violin and a plucked guitar – and these distinctions have important implications for timbre.

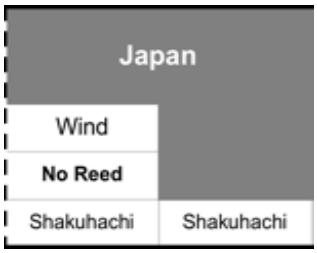
In addition, the level of instrumental detail in my database sources was variable. In some examples, specific types of koto were detailed, while percussion was simply listed as 'percussion'. Moreover, there are performance media in the database outside the parameters of both western art music orchestral groupings and the Sachs and Hornbostal system: voice, multimedia, dance, and environmental objects. Thus, neither the Hornbostal and Sachs system nor the western orchestral groupings approach was directly viable in this context.

Therefore, I combined the regional identity of the instrument with broad instrument groupings from the western orchestral format and the Sachs and Hornbostel (1961[1914]) system, and additional groupings of my own devising, based on broad timbral groupings and musical medium, to create a four-tiered system in which regional identity, instrumental family and method of play are represented. This system allows the potential timbral and the cross-cultural architecture of the ensemble to be identified.

In this example of two instrument columns taken from the database, we see the four-tier system that I have developed:

Figure 3.2 Example of database organisation

1. Tier 1: **Japan** - indicates national/regional identity.
2. Tier 2: **Wind** - indicates that this is a wind instrument.
3. Tier 3: **No Reed** - indicates that this is a wind instrument without a reed.
4. Tier 4: **Shakuhachi** - indicates the instruments in the two columns are shakuhachi.



Each Tier 1 country/region/group (Japan, western, voice) is indicated by title and subheadings are listed once, at the beginning of the group. Whilst the regional identity of acoustic instruments is listed, it is not used for categories of 'Electrophones', Voice and Other (miscellaneous performance media). These categories are identified by broad organological grouping, for instance

'Electrophones' or 'Voice', and the ordering system may become a four-, three-, or two-tier taxonomy.

As will be noticed in this example, there are two shakuhachi columns. This is to allow for shakuhachi music in which two shakuhachi are used. If a work uses more than two shakuhachi then it is listed as a shakuhachi ensemble. For all other instruments, if more than one is used, it is listed as an ensemble. The instrumental columns do not indicate the numbers of an instrument used in the composition, as only one instrument is needed to indicate that this *type* of instrument is used; the numbers of particular instruments used in the composition can be found in the instrumentation summary column. If no number is indicated, there is only one such instrument in the composition.

For the database to be effective, it was important to ensure consistency in the data presentation, therefore systematisation of nomenclature between the data sources was necessary. For example, interchangeable use of terminology such as *gen* (string) to denote the type of koto could lead to inaccuracy in the results; hence whilst *gen* may appear in the instrumentation summary column, it is not used in the individual instrument columns from which the results are calibrated. In addition, types of instrument were not always specified; the source material may simply state koto without specifying the number of strings.

Although we can tentatively infer that when the number of strings is not clarified, 'koto' will refer to the standard 13-string instrument, if the type is unknown then the work is listed in the generic 'koto' category, and likewise for other such unspecified instruments. Some works list alternative instrumentation, for example, Moroi's *Uitenpen* (1973), in which Benitez and Matsushita (1994:249) list the instrumentation as "17-*gen* (13-*gen*)" (1994:249), i.e. 17-string and 13-string koto. Given this presentation of data, it is unclear whether the 13-string koto is an alternative to the 17-string bass koto, or is intended as an additional instrument, or even whether the combined 30-string koto could be used. In either case, the alternative instrumentation was included in the individual instrument listing, as

the aim of this survey is to estimate potential instrumental combinations rather than actual performances.

Excel sum and filter functions were then applied to the instrument listings to calculate the frequency of cross-cultural use with the shakuhachi, of which the commonest are discussed below. The most obvious search was to sum each column to gain the total number of recorded instances of an instrument's use in combination with the shakuhachi, while filter searches enabled multiple combinations of instruments with the shakuhachi to be compared, thus enabling the ensemble context of those individual instruments with the shakuhachi to be assessed, and it is this latter tool that has proven the most useful to the analysis.

3.3.2 Database layout and navigation

Each entry lists name and dates of the composer, their nationality, the work and year of its composition, and a summary of the instruments used (sha, biwa, orch). Instrument and voice abbreviations are those used in standard western music formats and by Benitez and Matsushita (1994:240). For other instruments and performance media, its name is usually written out in full in the summary column. If an abbreviation has been used it will be listed in the 'Instrument Abbreviations' sheet on the database.

The initial five columns of basic compositional information are followed by the individual instrument listings for that work, in which each column denotes an instrument, pairs or groups of instruments, or performance media with the name of the instrument(s) given in full, for example single instruments (shakuhachi; violin; koto), pairs of instruments (bassoon and dulcian),[100] an instrument group (string quartet; koto ensemble; orchestra), or a group of performance media (tape, computer, and electronics; environmental objects). A '1' is entered into the cell of the relevant instrument column if the instrument(s) is/are present in the composition and it is these instrumental columns that provide the key data for comparison.

100 Dulcian – a Renaissance bassoon.

The entry for Takemitsu's work, *November Steps* (1967) for shakuhachi biwa and orchestra has a listing as follows:

Figure 3.3 Example of database layout

Composer	Nation -ality	Work	Year	Instrumentation Summary	Japan	Japan	Western
					Wind	Strings	Mixed Groups
					No Reed	**Plucked Lutes**	**Mixed Groups**
					Shakuhachi	Biwa	Orchestra
Takemitsu, Tōru (1930-96)	JP	November Steps	1967	sha, biwa, orch	1	1	1

In this example, instruments are organised by country/region (Tier 1), then by organology (Tiers 2–4). I have alternated the two colours used (grey and red) of the Tier 1 country/region row to aid reader navigation of the database. Here 'Western' is coloured in red – in the actual database it is grey; I have transposed the colours for the purposes of illustration. If the composition does not use an instrument, that instrument column(s) is left empty. In the example given above, unused instrument columns have been hidden, again solely for illustration; shakuhachi, biwa and orchestra are not adjacent in the actual database.

The databases are on spreadsheet 1 (entitled "Database") and spreadsheet 2 ("Database 2") of the Excel file on CD 1, track 1 entitled "Shakuhachi compositions database.xlsx". Spreadsheet 2 ("Database") has the four-tier instrument classification system heading the database, so the viewer can scroll through with a basic identification of the instruments to hand. Unfortunately Microsoft Excel 2008 does not enable filters to be applied to merged cells, therefore to attach the filters I had to copy the database to a second spreadsheet (spreadsheet 3: "Database 2") and remove the merged header cells, leaving just the row containing the instrument names.

The standard filters have been attached to these cells. If the viewer wishes to search for the number of times an instrument has been used, they should click on the arrows in the corner of each header cell and select '1'. The database will show only those rows with a '1' in the cells for that instrument column, i.e. all the compositions which use that instrument. To remove the filter, click on the arrows in the header cell and select 'show all'.

3.3.3 Analysis and results of the commonest instrument combinations

The focus of this study is the combination of individual western instrument timbres with the shakuhachi, rather than large and/or unspecified groups such as orchestras, choirs, and percussion. For this reason, I have edited the list of the most frequent combinations to remove orchestra, percussion and so on[101] so as to facilitate the individual instrument focus. Furthermore, I have added individual specified types of koto and shamisen to the unspecified types of koto and shamisen, although I have not included ensembles in this total, koto, string quartet or otherwise. I have also omitted tape/computer/electronics, given my focus on acoustic timbres. The full list can be found in Appendix 2, while the edited list of the commonest individual instrument combinations with the shakuhachi is as follows:

Table 3.3 The commonest individual instrument combinations

Instruments	**Frequency**	**Instruments**	**Frequency**
Koto (all types bar bass)	223	Biwa	42
Bass koto	89	Cello	36
S*hamisen*/*sangen*[102] (all types)	79	Flute	35
Piano	43		

The reader will notice that I have included Japanese instruments alongside the target western group. While this study is considering western instruments in combination with the shakuhachi, it is useful to contextualise this among frequent individual instruments for comparison. Furthermore, this also allows us to assess the frequency of use of other instruments with the shakuhachi, and supports the earlier survey findings that the most common instrument combinations among the overall cohort were Japanese.

[101] See Appendix 2 for the full list.

[102] Shamisen is interchangeable with *sangen*.

3.3.4 Japanese Instruments

The most common Japanese instruments to be used were overwhelmingly those of the koto family, followed by the shamisen, then biwa. For the koto and shamisen, this is unsurprising, even in western-style music, given the use of these instruments with the shakuhachi in the chamber music genre *sankyoku*, which underwent significant developments in the Meiji era (Day 2013:265–292, Shimura 2002:701–704–705, Nogawa 2002:715–717, Tsukitani 2008:158–160, Flavin 2008:192–194), although the picture becomes more complex with a breakdown of the instrument types. The comparatively high use of the biwa is more noticeable as the instrument does not share a performance tradition with the shakuhachi, notwithstanding one of its best known cross-cultural interactions is with the shakuhachi in Takemitsu's *November Steps* (1967) for shakuhachi, biwa, and orchestra.

3.3.4.1 The koto and the bass koto

The koto is the most frequently used instrument in combination with the shakuhachi by far. The koto listed comprise unspecified koto and specified koto (13-string, 15-string, 20-string, 21-string and 30-string, and the 1-string *ichigenkin*), as well as the 17-string bass koto:

Table 3.4 Frequency of different koto types

Unspecified koto	129	20-string koto	21
Bass 17-string koto	89	13-string koto	19
21-string koto	50	30-string koto	2
Koto ensemble	45	15-string koto	1

The traditional 13-string koto was (and is) used in the *gagaku* (court music) orchestra, and came to be used outside that context during Japan's middle ages. The precursor of the modern koto tradition can be traced to Kengyō Yatsuhashi (1614–1685) during the Edo period, from which the koto repertoire, *sōkyoku*, merged with that of the shamisen, *jiuta*, to form *sōkyoku-jiuta* (Flavin 2008:172-3), the basis for the aforementioned *sankyoku* repertoire in which the shakuhachi participates. During the twentieth-century, the new musical environment

encouraged experimentation and developments in repertoire, techniques, and organology such as the addition of strings to give the varieties listed above.

The seemingly popular 21-string instrument was developed by the notable twentieth-century Japanese composer Miki Minoru, with 50 instances listed. It is tuned to the western diatonic scale, enabling it to be easily combined with western, or other instruments. It was initially designed as a 20-string koto, and the 21st string was added several years later to enable the thumb to strike an adjacent string, thus helping to preserve the timbre of the original 13-string instrument (Miki 2008:126, 151–2). Although there are 50 instances of this 21-string instrument listed, 42 of these are Miki's own compositions (Miki 2008:207-227, Benitez and Matsushita 1994:247-248), whilst the other 8 are in the compositions of Miki's American student, Marty Regan.[103]

However, Miki mentions that while composers have written for the 21-string instrument, it remains widely known as the 20-string instrument (Miki 2008:151). As such the 21 listings of the 20-string instrument may well be the 21-string koto; without corroboration it is impossible to tell. Meanwhile the traditional 13-string instrument has less usage indicated, although this instrument could also be the default unspecified koto, which would then make it the most popular choice, however it is impossible to know from the data provided.

The 17-string bass koto is the second most common combination with the shakuhachi, for which 89 instances are listed. This koto was an early twentieth-century development; it was developed in 1921 by the composer and koto virtuoso Michio Miyagi[104] (Tsukitani 2008:160-163, Flavin 2008:194, McQueen Tokita and Hughes 2008:8, 31) in collaboration with Hisao Tanabe (Miki 2008:126) and from the database evidence (Benitez et al. 1994, Iwamoto 1994:7, Samuelson 1994,

[103] http://www.martyregan.com/works/ (2 Jul 2015). N.B. Most of these works are listed on his current website; several compositions listed on his old website have not been included in the current list.

[104] http://www.komuso.com/people/people.pl?person=663 , http://www.miyagikai.gr.jp/english/ (2 Jul. 2015).

Regan)[105] seems to have been increasing in popularity throughout the post-war era to become one of the most popular koto in use today in Japan. The only listed composer outside Japan to have used it in composition is Marty Regan, who includes it in four compositions, three of which are ensemble works, while one, *Sanyō* (1991) is a duo for shakuhachi and bass koto. One of his ensemble works, *Parting the Oceans, Moving Mountains* (2007) is a veritable cross-cultural instrumental mix with shakuhachi, flute, cello, 21-string koto, bass koto, and *ko-tsuzumi* (small hourglass drum).[106]

In the 1950s, Shūretsu Miyashita experimented with a combination of the standard 13-string instrument and the 17-string bass koto to create a 30-string instrument (Miki 2008:126, Lande 2007:152), for which he composed two works (Benitez et al. 1994:248); this instrument has not proven popular among the represented cohort, perhaps because most composers would simply use separate 13-string and 17-string instruments. The 30-string combination creates an instrument with a range similar to the cello,[107] although it is the 17-string bass which conflates most closely with the distinctive lower tessitura of the cello. With this in mind, it is perhaps useful to consider the position of the bass koto as the second most commonly used Japanese traditional instrument with the shakuhachi, while the cello is the second most commonly used individual western instrument with the shakuhachi, of which more later.

3.3.4.2 The shamisen

The shamisen is a three-stringed plucked lute originally from China, via Okinawa, which has come to be used in myriad Japanese traditions, predominantly theatre, folk, popular music, and *sankyoku* (music for shakuhachi, koto, and shamisen).[108] There are three basic types of shamisen, *hosozao* (thin neck), *chūzao* (middle neck), and *futozao* (thick neck), which often have associations with particular

[105] http://www.martyregan.com (19 Jul. 2015). Also see CD 1, track 1 spreadsheet 5: Sources.

[106] http://www.martyregan.com/japanese-instruments/ko-tsuzumi/ (5/7/15).

[107] http://www.promusica.or.jp/english/koto.html (2/7/15): the 30-string range has been extrapolated from the illustration of the 13 and 17-string koto.

[108] See Chapter 2, §2.1.

traditions, such as the use of the *futozao* shamisen in *gidayū-bushi*, the music of the *bunraku* puppet theatre (Yamada 2008:197–228, Malm 2000:213–238, Kishibe 1982:59–78). In this cross-cultural shakuhachi corpus, the shamisen has 77 listings: 47 unspecified, 18 *futozao*, 10 *hosozao*, and 2 *chūzao* shamisen works. Although the default shamisen could be the *chūzao* shamisen there is no way of knowing. As with the koto, it is unsurprising that this instrument has frequently been combined with the shakuhachi, given its *sankyoku* associations.

The majority of shamisen uses with the shakuhachi are in the context of a larger ensemble work with other Japanese instruments, for example Minoru Miki's Orchestra Asia and occasionally western instruments such as Miki's *Yui III- Flowers and Water* (1985) for shakuhachi, 21-string koto, futozao shamisen, string quartet, and harp (Miki 2008:220). Whilst there are a number of compositions solely for shakuhachi and unspecified shamisen, there are also three works specifically for futozao shamisen and shakuhachi by Seihō Kineya (1914-1991), Nagako Konishi (1945-), and Kinichi Nakanoshima (1904-1984) (Benitez et al. 1994:245, 246, 250). The futozao shamisen is considered to have the most prominent *sawari*,[109] a distinctive and highly prized resonant buzz (Yamada 2008:204), although this may also be mediated by social expectations of genre and style (Flavin 2008:185, Tokita 2008:236).

3.3.4.3 The biwa

The plucked lute known as the biwa arrived in Japan with the gagaku orchestra and subsequently evolved in a distinctive narrative song tradition associated with Heike monogatari (The tale of Heike). Other narrative song traditions followed: the *satsuma*-biwa military songs and the *chikuzen*-biwa lyrical chamber music songs, of which the former has been particularly influential in twentieth century developments through the efforts of Kinshi Tsuruta, who developed a new style and collaborated with Takemitsu on *November Steps* (1967).[110]

[109] See Chapter 4, §4.3.1.

[110] See Chapter 4, §4.3.1.

Whilst the instrument has only 42 occurrences, its unconventional use with the shakuhachi in *November Steps* (1967) has brought the biwa to considerable prominence, from which many cross-cultural projects have since evolved, such as that explored in Chapter 5. There are five duos for the two instruments, which is innovative per se since they do not share a performance tradition (Benitez et al. 1994). The remaining compositions include the biwa as part of a larger ensemble, and include shakuhachi-biwa cross-cultural compositions involving western instruments, such as *Kashin* (1973) by Kazuo Fukushima (1930-)[111] for shakuhachi, biwa, double bass and harp, Maki Ishi's *Nukleus* (1973), for shakuhachi, biwa, flute, and harp, and Michiharu Matsunaga's (1927-)[112] *La parole sans paroles* (1983) for shakuhachi, biwa and tenor sax (Benitez et al. 1994:242, 244, 247).

3.3.5 Western Instruments

The three most frequent western instruments to be used with the shakuhachi are, in that order, the piano, cello, and flute. Although the frequent piano use was surprising, given the instrument's timbral and microtonal distance from the shakuhachi, the common use of the cello and flute was anticipated. The cello has microtonal, timbral, and tuning flexibility, whilst the timbre and playing method of the non-reed aerophone flute are close to that of the shakuhachi, albeit with rather fewer timbral and microtonal possibilities. Although I do not cover it here, the fourth and fifth most common instruments were the violin and harp respectively. The violin has similar timbral and microtonal possibilities to the cello, while the performance practice of the harp emulates that of the koto, an effect exploited by composers such as Takemitsu in *November Steps* (1967) (Peters Edition).

3.3.5.1 The piano

Whilst the comparatively high usage of the piano in 43 works was rather unexpected, upon closer inspection, many of these are as part of a larger cross-cultural ensemble. Given that a standard piano has very little timbral flexibility and

[111] http://gradworks.umi.com/34/31/3431727.html (1 Jul. 2015).

[112] http://www.komuso.com/people/people.pl?person=1027 (1 Jul. 2015).

has fixed chromatic equal temperament tuning, the piano is some distance from the privileged timbral and microtonal flexibility of the non-equal-tempered shakuhachi, even when the five pitches of the shakuhachi are tuned to equal-tempered pitch frequencies corresponding to pitches in equal-tempered diatonic scales (Day 2009:143, 2011:62-63, Tsukitani 1994:115, Neptune 1978:106). Whilst the sonic parameters of a piano are thus seemingly distant from the piano, the common role of the piano as an accompanying instrument and as an ensemble instrument should not be overlooked.

The shakuhachi–piano compositions date from the 1960s to the present day and have been written by both Japanese and non-Japanese composers with a variety of instrumental combinations. Of the 16 compositions in which the piano is solely combined with the shakuhachi, most were written during the 1980s, and all are by Japanese composers with the exception of *Shuso* (1993) by the British composer Julian Johnson (Iwamoto 1994:42).[113] Whilst it is impossible to glean the role of the piano in most of these compositions without further research, the piano may be used as an accompaniment, as is the case in Akira Matsuda's *Collection of Pieces for Practising* Shakuhachi (c.1989)[114] (Benitez et al. 1994, Samuelson 1994, Iwamoto 1994).

3.3.5.2 The cello

Together with the flute, the second most common individual western instrument is the cello with 36 compositions listed, of which 5 are solely for shakuhachi and cello:

[113] Julian Johnson is no longer active as a composer; he is now a musicologist based at the Royal Holloway and Bedford New College, University of London.

[114] Eliciting information about this publication was difficult as it is not widely available. The State Library of Western Australia lists its publication date as 1989, while several online retailers such as Amazon give 1990 as the publication date. I am following the State Library designation. The publisher given is Ongaku no Tomosha, a well-known Japanese publisher of music books. In the State Library notes on the publication, it is indicated that the compositions are for two shakuhachi with piano accompaniment, although whether all the compositions are for two shakuhachi is unclear [cit lib rec]. The second shakuhachi is not listed in the database because this information was not available prior to the cut-off date for inclusion, however the database can be updated in the future.

Llef (1988) by Hilary Tann, *Kio* (1988) by Michio Mamiya, *Scivias* (1989) by Jeffrey Lependorf, *Essay* (1972) by Hisayoshi Andō, and *Forest Whispers…*(2008) by Marty Regan, discussed in Chapter 8 (Benitez et al. 1994:242, 247; Samuelson 1994:92–93; and Regan[115]). *Scivias* (1989) by Jeffrey Lependorf (1942-), an American composer and shakuhachi master,[116] subsequently formed part of a shakuhachi-cello composition-improvisation collaboration between the shakuhachi player Ronnie Nyogetsu Seldin and the cellist Gideon Feldman, released on CD in 1998 by Gadfly records[117].

The 31 ensemble compositions featuring cello are a mixed collection of cross-cultural groupings including Japanese, western, and performance art (dance, mime). These works have been written by Japanese and non-Japanese composers, including the Japanese post-war composer Ryōhei Hirose (1930-2008) with *Sai* (1973) for shakuhachi, cello and percussion[118] and Gorō Yamaguchi (1933-1999),[119] with *Suite* (1963) for shakuhachi, koto and cello (Bentiez and Matsushita 1994:243, 253). Outside Japan, composers who have used both instruments in an ensemble include Marty Regan with *Sword Fight* (2007)[120] for shakuhachi, flute and cello, and Donald Reid Womack, an American composer based in Hawaii, with *Breaking Heaven* (2010) for shakuhachi, 13-string koto,[121] and cello. This work was released by Albany Records on an album of the same name in October 2014,[122]

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[115] http://www.martyregan.com/works/forest-whispers/ (2 Jul. 2015).

[116] http://www.jeffreylependorf.com/?page_id=8 (18 May 2015), and see Chapter 1, §2.3. http://www.jeffreylependorf.com/?page_id=14 (18 May 2015), Samuelson (1994:91).

[117] *Sound of Distant Deer* (1998) by Gadfly Records.

[118] Benitez and Matsushita (1994:243).

[119] http://www.komuso.com/people/people.pl?person=692 , http://www.shakuhachi.com/H-Yamaguchi.html , http://www.shakuhachi.com/H-Yamaguchi-Blasdel.html (18 May 2015).

[120] www.martyregan.com (2 May 15).

[121] The review of the composition *Breaking Heaven* by Oteri on newmusicbox.org lists the koto as 21-string, however the composer, Womack, indicates a 13-string instrument on his website – see footnote 85 for the websites.

[122] http://www.newmusicbox.org/articles/newmusicbox-mix-2014-staff-picks/ , https://itunes.apple.com/us/album/donald-womack-breaking-heaven/id924746274 , http://donaldwomack.com/#works-jpn (18 May 2015).

and displays an inventive use of textures and tonality between the three instruments.

The popularity of the cello may in part be due to its timbral and microtonal flexibility, which facilitates amodal mimesis (Cox 2010:50-55), while doing so in a register distinct from that of a standard 1.8 shakuhachi - unless the composer wishes to conflate the respective registers. Even so, the cello can move into a higher register, with considerable resonance at its disposal, and of course, lower shakuhachi can be used. In Grey's (1977) model of timbral similarity and dissimilarity ratings, the timbre of the strings and the flute were perceived to be close and it is possible that the shakuhachi would be perceived to be even closer to the strings than the western flute; it would be interesting to investigate, although controls on performance technique and instruments would need to be established, such as through the use of a PVC shakuhachi.

3.3.5.3 The flute

The flute is the third most popular instrument to combine with the shakuhachi and is listed in 35 compositions. Furthermore, of these works, a comparatively high 10 are solely for flute and shakuhachi, half by Japanese composers and the remainder by non-Japanese composers, based either in the U.S. or Europe. Compositions include Jō Kondō's (1947-) *High Song* (1987), of which, sadly, there has been no recording released, Hōzan Yamamoto's (1937-) *Sanrai* (1979), and Christine Mennesson's (1955-) *P.Y.A.* (1990) (Benitez et al. 1994:246, 254; Iwamoto 1994:42).

These works for flute and shakuhachi also include 2 compositions specifying bass flute, one by Michael Vaughan, *Nada* (1986) and the other by Frank Denyer, *The Tender Sadness of Tyrants as they Dance* (1991), which is the subject of Chapter 6. Whilst the bass flute is of recent provenance and still uncommon, the larger embouchure and lower tessitura proffer greater timbral and microtonal flexibility than would be the case on the standard Boehm flute, as will subsequently be discussed (Iwamoto 1994:11–12, 41; Denyer 1994:45, 52).

The ensemble works include a range of cross-cultural instrumentation, often with western bowed string instruments or Japanese koto. Anne Boyd's work *Jade Flower Song* (1996) for shakuhachi, flute, bassoon, and harp is one of the few works employing a reed instrument,[123] while Yoshiro Irino's *Gafu* (1976) employs flute, shakuhachi, shō, and double bass, Tania Cronin's *Fixed Stars* (1985) uses flute, shakuhachi, double bass and harp, and Akira Nishimura's *Gaka I* (1987) uses shakuhachi, flute, cello, and koto (Samuelson 1994:89, Benitez et al. 1994:244, 250).

3.3.6 Discussion

The common use of instruments such as the koto and shamisen with the shakuhachi was unsurprising given the ensemble history of these instruments, although in these compositions they have all been used in new musical contexts. Furthermore, the koto has undergone substantial organological developments throughout the twentieth century with the addition of strings to create the 20/21-string model and the creation of the 17-string bass koto, which confers innovative practices on any ensemble music-making with the shakuhachi with the addition of strings. Instrument combinations such as the biwa and the shakuhachi are also innovative as these instruments do not share a performance tradition, but have been meeting in the new musical environment of post-war composition.

For western instruments, some expectations were borne out, such as the high incidence of cello and other string instruments, and the flute with shakuhachi, given their congruent timbral and microtonal potentialities, particularly when extrapolating Grey's (1977) timbral similarity findings, and considering Cox's (2010:50–55) amodal mimesis. However, a note of caution: while I may have expected shakuhachi and strings and/or flute to be common, this expectation assumes that the composer wishes to have high timbral homogeneity between the instruments, and that the shakuhachi would exhibit similar results as those found in Grey's experiment; it is conceivable that the shakuhachi would come even closer

123 http://www.australianmusiccentre.com.au/search?page=5&type=work&wfc[]=Anne+Boyd&sort=alphaTitleSort (23 Jul 2015).

to the strings than the Boehm flute, which would be interesting to investigate further.

The unforseen high prevalence of shakuhachi-piano combinations at 43 instances is also a useful demonstration of the care that should be taken with inferring meanings from database results; many of the piano-shakuhachi works actually use a large ensemble of which both instruments are part. Thus, while this database provides an overview of instrumental frequency, care should be exercised to cross-reference single indicator results where possible to avoid misleading inferences of the frequency of instrumental combinations.

Many more filters and searches could be done with this database than have been discussed here. Whilst large surveys have long been considered problematic in ethnomusicology and musicology (Nettl 2005:92–112, Ellingson 1992:, Nettheim 1997:43–105), here they offered a means by which a diverse collection of material, including long compilations of composers and compositions, could be represented systemically and analysed to shed some light on the musical worlds in which these compositions took place. The collection also provides a useful research tool for anyone wishing to gain an overview of international shakuhachi composition from the post-war era onwards with reference to the diverse range of instrumentation used.

3.4 Conclusion

These two surveys of shakuhachi cross-cultural composition from the post-war era to the present day, using the publications of Benitez et al (1994), Samuelson (1994), and Iwamoto (1994), Miki (2008), and internet sources have supplied a broader picture of the range and extent of international shakuhachi cross-cultural composition and its instrumentation. This is an area which could subsequently be expanded upon now that the database has been established, with a greater emphasis on surveying current numbers of composers, and perhaps branching out into a focus on other Japanese instruments.

The approach could even be taken into other genres, regions and intercultural endeavours, particularly in our world of global connections and cross-cultural encounters, where it s not feasible to visit all areas all of the time. Cross-cultural composition trends within particular areas such as Europe or Japan could be further explored with reference to the shakuhachi or another Japanese instrument, or comparison between use of different Japanese instruments in cross-cultural composition in the same area could also be considered.

More detailed research could also be done on other shakuhachi-instrumental combinations for example. In the meantime, the surveys suggest shakuhachi, and other Japanese instrument traditions are being maintained and explored in new musical environments. It is also worth remembering that the findings for Japanese instruments are based on their usage of shakuhachi compositions, so are not a reflection of the overall range of their usage within contemporary composition. Nevertheless, such large surveys relegate individual ethnographic foci and should be approached with caution due to their inevitable generalisation of locally significant musical distinctions and potential distortions of material (Nettheim 1997:43–105, Nettl 2005:92–112).

These surveys arose as a means by which disparate published listings could be used to further illuminate the cross-cultural compositional trends and approaches outlined in the previous chapter. Having established the context of cross-cultural composition on the global stage, we can now turn our attention to the features of the instrument that many composers find attractive (Denyer 1994:48, Cronin 1994:77, Regan 2006:7); namely timbre and the music-cultural context in which it evolved.

4 The privileged role of timbre in East Asia in relation to shakuhachi practice

4.1 The privileging of timbre in the musical traditions of East Asia

> …dirt is matter out of place….. [It] implies two conditions: a set of ordered relations and a contravention of that order. Dirt then, is never a unique isolated event. Where there is dirt there is system. Dirt is the by-product of a systematic ordering and classification of matter, in so far as ordering involves rejecting inappropriate elements. (Douglas 1984:36).

If we take this conjecture together with John Blacking's (1995:56) assertion of music as "humanly organised sound", then we can posit that noise may just be music out of place. Takemitsu (1995:65) considered the western art music tradition to have worked toward the reduction of noise in instrumental tones, and this noise is inharmonicity in the timbre. Whilst such noise may not have high value in western art music and may even be construed as a lack of sophistication, in some parts of the world the presence of 'noise' has a status of high musicality.

In Japan and East Asia, noise around the central tone was and is highly prized as adding depth to the sound, and can constitute core taxonomic, structural and aesthetic values, often realised through standard instrumental techniques. Timbre is a privileged category of musical information in the "*humanly* [sic] organised sound" (Blacking 1995:53) of the region, and the privileging of such timbral noise is not restricted to East Asia; as was outlined in Chapter 1, similar values exist in Quechua speaking communities of the Potosí region in the Bolivian Andes.

As such the privileged role of timbre in shakuhachi music is not unique to the shakuhachi, but is rather an example of a musical artefact that is privileged throughout other Japanese and East Asian musical traditions. There are well-established historical precedents of timbre as a key epistemological category in East Asia, which continue to inform contemporary approaches to shakuhachi and other musical traditions, either as explicit or implicit practices.

These approaches often constitute fundamental taxonomic organisation, notation and mnemonics, organology, instrumental techniques, aesthetic preferences and other components of musical structure and performance practice in East Asia, and are rooted in musico-cultural values, tuning systems and understandings of scale in the area. Many of these musical approaches to timbre and related practices originated in China, which has had a dominant role in East Asian culture for centuries. However where such approaches and ideas have been exported they have been adopted and adapted to local sensibilities, such as with the preference for thick timbres in Japan and Korea (Willoughby 2007, Hughes 2008, Tokita 2008, Miki 2008, Yamada 2008, Sakata 1966, Takemitsu 1995).

Therefore, whilst the expression of timbre in shakuhachi music is specific to the instrument, the valuation and evolution of timbre in shakuhachi music has taken place in a wider East Asian context. In this context, ideas about timbre evolved in concert with other musical developments such as tuning systems, instrumental design, notation and techniques, together with extramusical influences from religion, philosophy and aesthetics. As the privileging of timbre is manifest through a variety of musical practices, timbral representation may be primary, such as in vocal taxonomies; or more indirect such as in tablature, where the primary physical instructions produce the desired timbre. In addition, in some genres timbre may not be easily separable as a distinct category in the music. Instead the role and structure of timbre in musical practices may need to be extrapolated from other musical information such as oral mnemonics.

Furthermore, seeking to separate musical and extramusical components into discrete categories may obscure significant musical features, such as the interwoven epistemology of information in religion, philosophy and music, and the nature of information transmission and organisation of the musical tradition. Musical traditions may not be standardised across their common area of practice, so each teacher transmits a particular set of performance practices to their student.

Whilst timbre is privileged in the shakuhachi tradition, timbre in shakuhachi music has evolved in a devotional context in which systematic analysis was rejected as

anathema to successful practice of the tradition, although there is some explicit codification of timbral techniques in tablature and technique. This evocation of shakuhachi timbre in an arena inimical to systematic analysis is also prone to misconstruction, as the separation of musical and other information into discrete categories may be misleading and problematic. Furthermore, the representation of timbre in notation is secondary, via tablature and performance practice.

In addition, the timbre of an instrument is closely related to its tuning system and scale. Timbre is partly determined by the pattern of partials, which are produced by the fundamental tone, which in turn, is determined by the tuning system (Sethares 1999:11–50, McAdams et al. 2004:161–167, Halmrast et al. 2010:187). For many Japanese instruments, including the shakuhachi, their tuning systems are very different to the equal-tempered chromatic scale of the western art music orchestra, although as Day (2011:63) notes, most shakuhachi in the twentieth century have been tuned to equal-tempered pitches.

Furthermore, wind instruments are well known for their unstable pattern of partials (Roederer 1973:122) and the shakuhachi is no exception (Gutzwiller and Bennett 1991:47, Castellagno and Fabre 1994:221–223). However, performance technique is also a significant contributor to the resultant timbre (Castellegno and Fabre 1994:221–223), as can be seen in the deliberate destabilisation of the desirable timbral irregularity through performance techniques that manipulate timbre, so as to achieve desirable timbral outcomes such as the prized rough texture known as *muraiki*.

Thus, while shakuhachi timbral parameters are founded in tuning systems, the expression of these timbral identities and representations is embedded in complex musical practices and cultural forms, with aesthetic ideals of dense textures and temporality. It is to these expressions that we will now turn with an overview of timbre as it is conceived in East Asia, with the notation and performance techniques used in vocal, wind and string traditions that have evolved in the region, before moving on to Japan and the manner in which musical and extramusical influences have informed Japanese approaches to timbre in the shakuhachi.

4.2 Timbre in practice in East Asian musical traditions

Timbre has long been acknowledged as an integral epistemological category in East Asian music, whether in tablature, mnemonics, or the practices of a musical tradition, or in reference to taxonomies of musical tones and compositions evident in ancient Chinese sources. Chou Wen-Chung outlines references from early Chinese sources, in which a musical tone is:

> …defined in terms of its two primary acoustic properties, i.e. pitch and timbre. This last distinction is of great importance in the Chinese concept of music as it appears that from very early times, these two properties of sound were recognised as of equal value in music. (Wen-Chung 1991:180–181)

Expanding upon these core categories, Wen-Chung recounts further classification of musical instruments based on their materials, which as he notes "immediately places more emphasis on timbre" (ibid.), rather than a taxonomy based on the vibrations of the instrument. Furthermore the organisation of musical compositions was based on their scale pitches and specified classes of timbre, in the *Chou Li* (Rites of Chou), a text dated to the third century B.C.E:

> This concept, that a musical composition is organised according to proper choice of scale-tones and instruments of specific timbre, and there a musical tone is defined not only by its pitch but also by its timbre, is… a fundamental one in Chinese music and has long characterised all East Asian music, even if the music in question is for a solo instrument – such as the music for the Chinese ch'in[124] or the Japanese shakuhachi, or the sanjo compositions of Korea. (Wen-chung 1991:181)

That the interpretation of these early sources suggests a privileging of timbre, which retains significance for performance practices today, testifies to the continued prominence of timbre as a core musical epistemology throughout the region. Although there may not be standardised timbral nomenclature common to musical traditions of East Asia, there is a common concern with timbre across the musical traditions of the region, despite local differences of "scales and melodic material…and separate social and artistic organisation"(Tokita 1996:1).

[124] Ch'in a.k.a. *qin*, a plucked zither.

Given the common concern with timbre, it is possible to look at generic approaches to the epistemologies of tone-colour that inform those musics. Within the consensual focus on timbre, and local approaches to delineating timbre in vocal or instrumental traditions, there is a broad spectrum of explicit and implicit timbral techniques and contexts, used for example, as character signifiers in theatre or as a key element in music structures and aesthetics.

4.2.1 Taxonomies in vocal performance

Timbral prominence is evident within the taxonomic nomenclature used in vocal genres such as Japanese *nō* theatre music and the Japanese genres of *kagura* (Shintō chant) and *shōmyō* (Buddhist chant), Chinese *han* melodies, and the Korean *p'ansori* narrative tradition (Nelson 2008:35–76, Willoughby 2007:21). These taxonomies delineate types of timbre and delivery, and suggest a detailed physiological awareness of the manner in which different vocal loci and shapes correspond to different timbral expressions of sound. Taxonomies are organised by a delivery style in which timbre plays a key role, alongside melody and rhythm, and the existence of these taxonomies testifies to the privileging of timbre as a key communicative medium and core musical structure in these three genres.

In the Japanese *nō* and Korean *p'ansori* traditions this includes the demarcation and privileging of hoarse, thick timbres. This privileging of dense timbres is also found in the more general Japanese timbral vocal ideal known as *sabi*, a "thick, seasoned voice" (Shimosako 2002:552), which is valued more highly in many genres than a thin clear voice, on the grounds that a thick seasoned voice has more depth than a thin one.[125] In Japanese *min'yō* (folk music), this texture is known as *tsuchikusai* (reeking of the earth)(Hughes 2008:289). The preferences for dense thick timbres are also found in Japanese shakuhachi, shamisen and biwa music and other instrumental traditions as will be discussed. Takemitsu referred to this highly regarded aesthetic as "beautiful noise" (1995:64–65) and it is a theme to which I shall return.

[125] An exception to the Japanese preference for vocal *sabi* is in *Kagura*, Shintō ritual music, in which the preferred vocal style of the slow, melismatic music is a pure voice with little *vibrato* (Fujita 2008:131).

4.2.2 Timbre in oral and written notation: mnemonics and tablature

4.2.2.1 Mnemonics: *shōga* and *yukpo*

A concern with timbres is evident in the well-established use of oral mnemonics for musical training in Japan and Korea. Hughes (1991, 2000) identifies relationships between patterns of consonant and vowel sound of oral mnemonics, known as *shōga* in Japan and *yukpo* in Korea, relative to their musical application; for example, the type of note onset of a wind instrument is mimicked by the presence and type of initial consonant in the *shōga* (Hughes 2000:96–97). Whilst these relationships between the sound and pitch pattern of the mnemonic and the sound and pitch pattern of the music are present in well-established systems, Hughes (ibid.) notes that the music practitioners who use these systems do not generally have a formal awareness of this relationship.

4.2.2.2 Tablature

Tablature, which is widely used in East Asian music for zithers and plucked lutes, as well as for the shakuhachi, is also an important source for indications of timbre, in contrast to staff notation, which privileges stable diatonic pitch and rhythm. While staff notation can accommodate dynamics indicators and some other performance indicators, they are limited additions, with very little timbral signification, which Gunji (1986:177) argues is the result of emphasizing stable pitch, while disregarding timbre as a functional tool in music structure. Tablature represents physical directions for the player, a motor grammar, which will generate musical information of timbre, pitch and/or duration and other performance indicators such as dynamics.

Timbral effects are often indirectly managed; musical terms and instructions refer to a playing technique that will result in a timbral effect rather than giving instructions on the timbral effect directly (Gunji 1986:177). In Ellingson's (1992:157) view, this is prescriptive and articulatory with iconic and analogue elements. Like rhythmical or pitch notations, timbral instructions are symbolic representations. A distinctive feature of the symbolic representation of timbral

instructions is the use of representations of the physical gesture by which the timbral effect is obtained, to explain the desired timbral effect.

Instructions for individual movement and sequences of movement vary in detail, from simple fingering charts to very detailed instructions which can indicate hand position, finger(s) used, the direction of the finger movement, the type of movement (for example plucking or striking), force of the movement, proportional breath duration and movement, note onset, octave and other musical information. The principal modus operandi of shakuhachi tablature is physiological descriptors and musical directions akin to those of the East Asian string instruments such as the *qin* and koto whereby physiological descriptors and musical instrument directions are combined to produce musical instructions that are often very precise, although shakuhachi tablature lacks the detail found in *qin* tablature for example. For the Chinese *qin*, the tablature may include metaphor and poetic allusion to provide a simulacrum of the desired effect, and affect (Yung 1984:506).

4.2.3 The Chinese *qin*

In China the privileging of timbre as having equal status with pitch can be seen in the tablature of the *qin*,[126] a seven silk–string zither, which dates back about 2500 years, whilst the first tablature dates back about 1500 years to the early T'ang dynasty (618–907C.E.) (Chang 2006:78).[127] Detailed tablature, using Chinese characters, may represent a single, dual or chordal tone, or a figure or phrase, string number; posture, hand and finger position; stopping position on the left hand; *portamenti*, or other slide types, or other (microtonal) pitch movement; type of attack (single, successive, simultaneous); direction of attack movement; use of nail or flesh by the right hand (Wen-Chung 1971:215). Although a single character may refer to a sequence of movements, as well as single movements, the reader instantly perceives the character as a whole instruction, and each set of physiological instructions will produce a tone, or tones, with a distinct timbral identity (Lieberman 1984), which are often given with analogies to the natural world (Van Gulik 2011:107).

[126] *Qin*, also known as *guqin*.

[127] http://www.britannica.com/art/qin-musical-instrument (18 Jun. 2015).

Yung (1984), who considers movement to be central to the identity and classification of *qin* musical techniques, developed an analysis of the relationship of kinaesthetic and choreographic elements to the execution of a piece through an analysis of the location of overall (macro–movement) movement patterns. He correlated movement patters with reference to tablature and a grid map of the instrument developed from the traditional division of the instrument into three sections (Yung 1984:508-509). By so doing he illustrates a means of analysing timbre through physical movement, an approach that has gained considerable currency over the past few years in areas such as music cognition (Halmrast et al. 2010, Fatone et al. 2006, Godøy 2006, 2011, Gillan 2013).

4.2.4 The Japanese koto

The high value of timbre in the Chinese *qin* tradition and its corresponding tablature delineation in Chinese *qin* tradition is also found in the Japanese koto tradition. As outlined in the previous chapter, the koto is a zither which arrived with the *gagaku* orchestra and subsequently evolved a separate tradition. As with the shakuhachi, koto tablature systems vary across different schools of traditional koto performance. Although these systems commonly identify string, hand, finger and method of contact with the string, they do so in less detail than *qin* tablature. In the solo koto-*kumiuta* tradition, the oldest extant repertoire for koto players and one associated with the social elite, a number of tablature systems have been developed, with varying amounts of detail.

The detail included ranges from the basic song text with appended names of instrumental patterns, to detailed tablature organised in a grid with strings in Chinese characters, right and left hand techniques, performance pattern names where appropriate, ornamentation, pitch alteration, and some rhythmic information (Tsuge 1986:255–256). Tsuge attests to the valuation and taxonomy of timbre in koto music with a list of twenty-five distinct techniques whose names often refer to tone-colour. These come from an eighteenth century notation of the koto-*kumiuta* tradition and include techniques such as *waren*, *namigaeshi*, *nagashi-zume*, and *surizime*, which Tsuge claims have extra "noise", and which he attributes to the popular idea of the Japanese love of nature (Tsuge 1981:113).

The tablature and techniques of the Chinese *qin* and the Japanese koto again indicate the prominence of timbre, and its advanced development as a musical category, in line with Wen-Chung's assertion that timbre and pitch have equal status as musical information in East Asia (1991:180-181). Both instruments have detailed physiological instructions to produce distinct timbres and timbral nuances, and embody Yung's view of the identity of many *qin* techniques as embodied and expressed in visual and kinaesthetic terms (1984:154); this idea can be extrapolated to the shakuhachi and other instruments in that the identity of *vibrati*, delineated timbres, and other techniques, are expressed in visual, kinaesthetic, and aural terms.

4.3 Timbre and texture in Japanese musical and extramusical traditions

Although there are commonalities in the privileging of timbre and in methods of delineating timbre across East Asia, in vocal taxonomies, mnemonics and tablature as previously discussed, each country has evolved distinctive ways of exploring and valuing timbre. In Japan, extramusical influences, from within and without the country, have contributed to distinctive Japanese expressions of timbral identity in musical traditions such as the shamisen and biwa, and have been combined to great effect in the individual sound of the shakuhachi.

The ideal timbre in many Japanese musics has evolved from a composite of cultural, aesthetic and spiritual ideals. As well as its pre-eminent role in shakuhachi history, Zen Buddhism, which evolved from Chinese Taoism and Buddhism, and is informed by native Shintōism, has also had an impact on the extramusical values of *wabi-sabi*. *Wabi-sabi* embodies a set of aesthetics which is associated with ceramics and the tea ceremony (Juniper 2003, Koren 1994), and also has musical correlations.

Wabi-sabi highlights qualities such as impermanence and temporal transience, texture, asymmetry, imperfection and space/nothingness, and a focus on detailed nuances of the rough, rustic, aged and impermanent texture of the art or music:

> It is the changes of colour and texture that provide the space for the imagination to enter and become more involved with the devolution of the piece. (Juniper 2003:106)

As a general rule, *wabi* tends to be associated with a way of life and mind, whilst *sabi* tends to be associated with aesthetics, such as the previously discussed *sabi* "seasoned" voice of *nō* theatre, temporal events, and material objects such as ceramics, flooring or the wood used for a musical instrument. As a patina that develops with age, *sabi* is a prized quality in the wood used for koto manufacture; in the biwa and shamisen traditions, *sabi* is an analogous quality to the rough, thick *sawari* effect; and in shakuhachi music *sabi* is analogous to the effect of the *muraiki* technique:

> Delicacy and refinement of tone such as we find, let us say, in Western flute playing… are not highly valued in the shakuhachi world. What is often sought after is a quality of roughness – not crudity, but a roughness not unlike that which is desired in a valued piece of pottery such as a tea bowl. In other words something which [sic] is old and faded. This is the famed aesthetic known as sabi. (Weisgarber 1968:318).

Weisgarber further links *sabi* to the appreciation of nature in Japanese culture, and the popular idea of a special link between the Japanese and nature:[128]

> Out of the rugged naturalness of the instrument itself and from the method of tone production…there comes a sense of kinship with the world of nature: the wind blowing through groves of bamboo and pine and the distant sea breaking on rocks, and always with that gnarled, unfinished quality. This is felt keenly by many Japanese. (ibid.)

The preference for rough textures in ceramics, seasoned wood, and hoarse, thick, seasoned timbres (*sabi*) in *nō* vocal performance is embodied in the concept of *sawari*, a buzzing effect which gives extra 'beautiful noise' to the sound of the instrument, and is most usually associated with the Japanese plucked lutes known as the biwa and shamisen.

[128] See Martinez (2005) for a prescient analysis that challenges this idea; she deconstructs the 'special relationship' as a cultural construct.

4.3.1 *Sawari*: the biwa and the shamisen

The plucked lutes known as the biwa and shamisen both originated in China and have a long history in Japan, where each instrument is associated with distinct genres, although there has also been considerable mutual influence and interaction between the two traditions. During the twentieth century both instruments were, like the koto and shakuhachi, combined with western instruments in arrangements ranging from small ensembles to large orchestras, such as the use of the biwa and shakuhachi in Takemitsu's *November Steps* (1967).

4.3.2 *Sawari* and the biwa

The four- or five-string biwa has a shallow resonating body, with four or five distinctive widely spaced frets which are so high on some instruments that it is possible to depress the string sufficiently between the frets to raise the pitch by a fourth (Miki 2008:74). Although the biwa arrived in Japan with the *gagaku* orchestra and is still used in that context, during Japan's middle ages a separate narrative tradition of biwa performance evolved, associated with performance of the medieval epic *Heike monogatari* (The tale of Heike) (Malm 1959; de Ferranti 2003, 2008, 2009, Komoda 2008).[129] From these beginnings a number of distinct narrative traditions arose, each of which was associated with specific types of biwa, plectrum, repertoire, and the performance techniques centred around a left-hand technique of playing *between* the frets rather than on them. With the flexibility of the strings over the frets and the distinctive large plectrum (*bachi*), a wide variety of timbral and microtonal techniques evolved in traditional and contemporary repertoire which exploit the *sawari* effect.

Sawari is built into many of the instruments in different ways. In the Nagoya *Heike-biwa* tradition, a protuberance is built under the second string on the moveable first fret which the string always touches, and this string is never played as an open string (Komoda 2008:95). The protuberance is designed to give the *sawari* effect when the first and third strings are played, and the position of the fret is

[129] The seminal tale of *Heike* is a samurai epic that emerged circa the thirteenth century about a twelfth century war between two clans vying for imperial control. The saga encompasses a range of themes from Buddhist impermanence to romance and samurai morality. See McCullough (1988).

adjusted before each performance to achieve the optimum effect. As with the Nagoya *Heike*-biwa, the *chikuzen* frets are adapted to enhance the *sawari* effect; however here, a bamboo strip covers the top of each of the frets, which produces a strong *sawari.*

On all biwa, the frets are thick to enhance the production of *sawari* and the pitches of the open strings are unstable as the force needed to push the strings down exerts considerable pressure on the tuning pegs, and as Miki suggests (2008:75), this instability is embraced as an element that gives the biwa its unique timbre. In practice *sawari* is created by pushing down the string in between frets one and two, which generates a multiphonic buzz via sympathetic vibrations. There are also a variety of techniques which exploit *sawari*, many of which are associated with the satsuma-biwa tradition. During the sixteenth century, the satsuma-biwa tradition of songs was developed to aid the development of military skills and uses a distinctive large, thin plectrum (*bachi*). The *bachi* is used to great effect in these techniques to create a "resounding whack when [the *bachi* is] struck against the body" (Malm 1959:160), that exploit distinct, often loud, percussive timbres, although this is not the only technique by which *sawari* and other timbral variations are evoked:

> '*Sawari*' is certainly one of the most important sound effects of the Satsuma-Biwa. The wide fret or Chû located directly below the left-hand fingers, when depressing a string, doesn't touch the string at one clear point (like on a guitar). This makes the string 'clatter' over the fret, creating the *Sawari*…. For performing the *Sawari* with a refined sound colour, you need a specific treatment on the frets, cutting the flat surface of the fret with a special knife. (Junko Ueda)[130]

This distinctive sound, produced via different means in different biwa traditions, is arguably fundamental not only to the sound of the instrument, but also to its identity, and was exploited by Takemitsu in *November Steps* (1967) as a juxtaposition to western instruments:

[130] http://www.junkoueda.com/vocab/biwa/ (18 Jun. 2015).

> The major characteristic that sets it [the biwa] apart from Western instruments in [sic] the active inclusion of noise in its sound, whereas many western instruments, in the process of development, sought to eliminate noise. It may sound contradictory to refer to "beautiful noise," but the biwa is constructed to create such a sound…. The term *sawari*, which also means to 'touch', may additionally mean 'obstacle.' Thus, *sawari* is 'the apparatus of an obstacle' itself. In a sense it is an intentional inconvenience that creates a part of the expressiveness of the sound. Compared to the Western attitude toward musical instruments, this deliberate obstruction represents a very different approach to music. (Takemitsu 1995:64–65)

Takemitsu's description of the characteristic of active inclusion of noise in the biwa in contrast to the removal of noise from western instruments is an astute observation of differences between western and Japanese systems, aesthetic values and epistemologies. His observation highlights the different scale of values of musical signification of inclusive sound movement on the one hand, stemming from a very different, Buddhist/Shintō influenced aesthetic and exclusive, precise pitch on the other, with the addition of noise, or not, providing a benchmark for the musicality of listener or musical object.

The embodiments of *sawari* in the biwa, in its organology and performance techniques, are another manifestation of the preference for the thick, rough timbres that we saw in the vocal *sabi* and *tsuchikusai* aesthetic. *Sawari* is a fundamental part of biwa music, in punctuating and emulating the songs and dramatic vocal narratives through the many techniques available, and has found further expression in new genres during twentieth-century developments.

4.3.3 Biwa techniques and contemporary developments

The biwa traditions have undergone significant developments in performance styles, techniques and design throughout the twentieth-century, including the establishment of a five-stringed, five-fretted instruments as the norm.[131] The satsuma five-string, five-fretted instrument known as the *nishiki-biwa* was the variety used by the influential performer Kinshi Tsuruta, who developed a new style known as the *Tsuruta-ryū*, which is particularly associated with innovative

[131] Tokita (2002:15) alludes to a modern style of biwa performance known as *kindai-biwa*, which she describes as quite different to *Heike*-biwa.

techniques, improvisation and collaborative work with western art and other genres She also modified the shape of the frets on the instrument, to facilitate fast melodic passages and other instrumental techniques. She is, perhaps, the most prominent biwa musician to engage in western art music collaboration and her work with Takemitsu remains her best-known cross-cultural endeavour (de Ferranti 2002:55, Tokita 2002:15, Takemitsu 1995:64-65).[132]

As we saw in Chapter 3, the biwa has been one of the more popular instruments in combination with the shakuhachi and is used in the improvisation discussed in Chapter 5, so it is worth giving an outline of its array of timbral techniques, many of which are detailed on the website of the satsuma-biwa performer Junko Ueda,[133] who was a pupil of Kinshi Tsuruta. Ueda lists traditional techniques encompassing types of plucking and striking, arpeggio, *tremolo*, pitch variation, and specific sequences, and contemporary techniques including plucking and striking, rubbing the side or base of the *bachi* (plectrum) on the string, bouncing the *bachi* on the string, arpeggio, *tremolo*, and stick rattling (inserting a stick between the strings, not dissimilar to prepared instruments used in western compositions).

As the titles of these types of technique suggest, many indicate changes of timbre, prominent or subtle, which will also be articulated with *sawari*. These wide timbral possibilities with their evocation of *sawari* have contributed to the post-war compositional appeal of the instrument for twentieth century composers such as Takemitsu (Takemitsu 1995:51–54, 64–65, de Ferranti 2002:43–71). However, as mentioned above *sawari* is not solely of biwa provenance; the shamisen traditions also claims *sawari* as their own. There has been considerable interaction and mutual influence between the biwa and the shamisen, in exchanges of repertoire, techniques, organology and aesthetics.

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[132] http://search.alexanderstreet.com.ezproxy.soas.ac.uk/view/work/bibliographic_entity%7Creference_article%7C1000225268#page/685/chapter/bibliographic_entity%7Creference_article%7C1000225342 (18 Jun. 2015).

[133] http://www.junkoueda.com/vocab/trad/ (18 Jun. 2015).

4.3.4 *Sawari* and the shamisen

The three-stringed lute known as the shamisen also came to Japan from China, via Okinawa, and became popular in a number of theatre, folk, and popular genres, and *sankyoku*. In most cases the shamisen provides accompaniment to songs in various genres (Flavin 2008:185, Tokita 2008:236). The instruments have a squarish wooden body over which animal skin is stretched, with the addition of a small thin leather strip where the plectrum strikes the skin. At the peg-box end of the hardwood neck, the second and third strings pass over a metal or bamboo bridge (*kamigoma*) or metal screw, while the lower first string passes over a slight depression.

The prized buzz of *sawari* is effected on the first string through complex harmonics resulting from sympathetic vibrations relative to pitches played on the other two strings (Miki 2008:90-91, Yamada 2008:204, Sakata 1966:152). While the strength of *sawari* varies, it is nonetheless considered to be integral to the music and as an embodiment of the identity of the instrument:

> It is not only an inherent characteristic of the instrument, but functions as an important factor in determining the quality of the instrument. (Sakata 1966:152)

Although *sawari* is not explicitly referenced in shakuhachi technique, the concept of *sawari*, complex, 'beautiful noise', is present in shakuhachi performance, as part of a repertoire that makes frequent reference to the natural world, and through specific techniques such as *muraiki*. In addition, as previously discussed, this beautiful noise has analogies with the rough 'impermanent' textures of *wabi-sabi*, and in the seasoned *sabi* voice of *nō* theatre and *tsuchikusai* (voice reeking of the earth) of *min'yō* (Hughes 2008:289). These prized qualities of timbre/texture, nuanced attention to detail and space are the same qualities that are prized in the rough timbres, timbral changes and spaces of shakuhachi music.

4.4 Timbre and the shakuhachi: aesthetics and religion, techniques and music

4.4.1 The timbral context

The shakuhachi and its repertoire, techniques, approaches and aesthetics evolved within the paradigm of East Asian musical practices, where pentatonic tuning systems combined with a high status and detailed attention accorded to timbre, and in some Japanese and Korean genres, a preference for dense, rough timbres. Whilst these privileged timbres may not have had common formal approaches and expressions, they nonetheless represent shared epistemological values, which are enacted in concert with extramusical influences from cultural ideas and belief systems, predominantly Buddhism and Shintōism. Within that paradigm, the primary association of the shakuhachi is Zen Buddhism, so discourse of the instrument and its aesthetics is often located within a Buddhist context:

> One reason for the shakuhachi*'s* wide appeal is its unique ability to enliven a single tone with all the colors [sic] of the spectrum. A skilful musician can enchant listeners with the depth of the instrument's possibilities. Yet this experience can be enhanced with a cultural and historical perspective. Awareness of the importance attributed to sound and music in Buddhism and the Buddhist-related arts that influenced the shakuhachi provides the key to an aesthetic appreciation of the shakuhachi. (Blasdel 2001:214)

Whilst Blasdel expands the shakuhachi focus on a tone to a general concern with sound in Zen-related arts, such as the sounds of the tea ceremony and the Japanese garden, his singular focus on a Buddhist explanation does not take into account the other influences upon Buddhism and the shakuhachi. Although Buddhism has certainly been a significant influence in the evolution of the shakuhachi, the interwoven nature of Japanese belief systems (Earhart 1982:1–4, Totman 2005:190–192, Ellwood & Pilgrim 1985:1–3), suggests that other influences, such as Shintōism, have also informed the evolution of the aesthetics of a single tone.

Buddhism was imported from China during the Nara–Heian golden age of the eighth-twelfth centuries, while Shintōism is indigenous to Japan. Buddhism in Japan is not separable from Shintō, or Taoist beliefs, in the way that we, in the west,

would tend to denote clear religious categories, such as Catholicism or Judaism.[134] In Japan involvement in more than one tradition is the norm, and the various belief systems have all experienced considerable cross-fertilisation and syncretism (Totman 2005:190–192, Earhart 1982:1–4).

The terms *michi* and *dō*, meaning way or path, are used to denote the route of the devotee and can be appended to noumena and phenomena, rather than denoting a 'religion'. It is the cultural habitus of people to practise devotions at Buddhist and Shintō shrines, and at a doctrinal level, concepts from Shintō have informed Buddhist practise and vice versa. Shintōism, imbued with the Taoist reverence for nature, embodies the world of *kami*, the sacredness of nature, in which deification is manifest in corporeal forms. Japanese religion does not emphasize a sharp distinction between gods, mortals and nature, instead creating a triangle of harmonious interrelationships in which mortals and gods revere nature, and are part of it.

Shintō, or *kami-no-michi*, the way of the *kami*, is a formal animist belief system with influences from Taoism and Buddhism. Central to Shintō is the notion of *kami* (gods or spirits) who both embody the national tradition and inhabit the natural surroundings. The term *kami* does not have a direct translation, but is a much more inclusive concept than a western notion of God, and operates between Japanese concepts of heaven and earth. *Kami* can be gods, spirits, or people present in mythology, in natural objects such as mountains and animals – any being possessing an awe-inspiring quality. This reverence for nature and animist belief system has infused Buddhist, and more specifically, shakuhachi practice (Earhart 1982, Ellwood & Pilgrim 1985).

The names of many *honkyoku* pieces reflect these influences, with references to and evocations of the natural world, such as *Shika no tone* (The cry of the distant deer) or *San'ya* (three mountain passes); or through the construction of shakuhachi instruments, in which the straight bamboo is curved during the

[134] See Chapters 2, §2.1.1 and 4, §4.4.

manufacturing process to look more natural. In shakuhachi *honkyoku*, these evocations blended with the *Fukeshū* Buddhist ideals of correct *zazen*, sitting meditation, with *ichion jōbutsu*, Buddha-hood in a single sound – meditation to attain enlightenment through playing the shakuhachi, or more simply, *suizen*, blowing Zen.[135]

The twelfth and thirteenth centuries were significant periods of development for Zen Buddhism, with the re-introduction and popularisation of the idea of enlightenment through meditative practices, available at any level to any member of society and incorporated with local belief (Totman 2006:193). From these beginnings, Zen practices and sects developed throughout several centuries of internecine instability; the origins of the *Fuke* Sect, central to shakuhachi histories as outlined in Chapter 2, date from this period. Musical practices developed during the Tokugawa era of the *Fuke* Sect, in which monks engaging in *zazen* (sitting meditation) used the shakuhachi as a *hōki* (religious tool) for meditation. This led to the evolution of the *honkyoku* repertoire with its characteristic focus on variation within individual sustained tones (Gutziller and Bennett 1991:36–37, Blasdel 1984:214–217, 2005:1, 12).

The evolution of this sound was also rooted in pragmatism; the possibility of developing a solo music that does not blend easily with other instruments is higher for solo mendicant monk playing a bamboo flute as an expression of devotion. The soloist doesn't have to maintain a steady tone; our idea of the separation of noise and note is not present; and the monk plays for meditative purposes – hence, perhaps, a focus on sustained tones. At the same time, the monk also needed to play tunes begging for alms, and these livelier melodies were often adapted from popular songs, despite explicit prohibition by the temples (Sanford 1977:430). Whilst such tunes formed the basis of the *gaikyoku* (outside music) repertoire, which expanded during the late Tokugawa era (early to mid nineteenth century), the official primary modus operandi of the instrument as a solo devotional tool was retained, as was its *honkyoku* repertoire, and this is a theme that is still very

[135] http://plato.stanford.edu/entries/japanese-zen/ , http://www.zen-buddhism.net (24 Jun. 2015).

prominent today in the international expansion of the tradition (Keister 2004, Blasdel 1984:214–217, 2005).

The individual tones of the shakuhachi are developed with timbral variation, ornamentation and microtonal pitch fluctuation, to create an individual musical moment; this was not conceived as a piece of music, but as an outcome of appropriate meditative practice. Timbral and pitch variation are key structural components in creating the moments and movement in *honkyoku*, and these values and forms of musical expression were carried into the secular repertoire, to become key in the instrument's distinctive sound and identity.

The timbral and pitch approach toward the individual musical moment, the moment itself, and the onward movement are paramount in defining the movement of *honkyoku* music (Gutzwiller and Bennett 1991:36–37, 58, Blasdel 1984:214–217). As such timbral variation plays a vital role in generating the musical momentum in the overall architecture of the piece, exemplifying the McAdams et al. (2004:157) proposition of a timbral trajectory in the music, and Tsang's (2002:35–36) timbral rhythm. Whilst musical analysis may seem feasible from this context, analysing the meaningfulness of the sound is more problematic given the context of Japanese Buddhism, where deductive analysis was inimical to successful practice and interwoven with other belief systems.

To look for a Japanese epistemology of sound in relation to shakuhachi timbre is to bring a western question to a very different situation with potentially misleading results. When considering concepts of belief systems and aesthetics in a western context, and using the methods of western philosophy, these concepts would generally be treated as distinct categories from one another, as the methodology aims to achieve understanding through reductive categorical analysis. This approach is problematic when considering the interwoven nature of Japanese culture as outlined above, given that Japanese culture, belief systems, aesthetics and social values are not separable categories as they are in the west, and the application of methods of systematic analysis as a tool to aid understanding is inimical to the values embodied in the Buddhist/Shintō belief systems. Therefore, although timbre is a prominent epistemological concern within this context,

approaching an analysis of timbre as a distinct analytic category raises the following issues:

- The framework of the question is western-centric, predicated on the assumption that a distinct timbral category exists as do pitch and rhythm in western art music. Although timbral categories do exist and, unlike western music have a privileged status and integral structural role in various musical traditions of East Asia, they have not been the focus of musical analysis.
- The traditional musical context of the shakuhachi is based on Zen Buddhist practice, which eschews conceptual analysis of the sort under investigation here, instead emphasizing being-in-the-moment through *zazen* meditation to attain enlightenment (ed. Igarashi 1979:1, 28–30):, with an emphasis on *ichion jōbutsu*, Buddha-hood in a single note. Whilst the shakuhachi is now widely played as a secular instrument, it is from this background that the instrument evolved and the Zen heritage continues to inform current musical practice.
- The interwoven, unified nature of Japanese religion and cultural beliefs; isolating a single strand can be very misleading, since people do not generally adhere to one tradition as is the case in western Europe, but instead practise multiple strands of Japanese religion.
- Zen has been influenced by other strands of Japanese religion, such as Shintō, in which nature is revered. This subtle yet pervasive influence has informed shakuhachi practices and approaches, in evoking the natural world.
- Key concepts of sound, such as rough, thick timbres (*sabi*, *sawari*) and the associated aesthetic of *wabi-sabi* have evolved out of the intersection of Japanese belief systems, cultural practices and aesthetics.

If the search for a Japanese epistemology of shakuhachi sound is redirected to look instead at how the context of the instrument resulted in an instrument with a musical focus on timbre, we see, from the context outlined in this chapter, that an epistemological composite of cultural and spiritual beliefs has resulted in an

emphasis on timbre as a core part of musical structure, with a high value on roughness. This gives us a more effective context for analysing the significance of the sound. As we have seen, timbre in shakuhachi has evolved from the correct practice of playing-in-the-moment in *zazen* meditation in a context influenced by other traditions such as Shintō, which revere nature; an environment where conceptual analysis is undesirable and oneself/sound are a balanced part of nature.

That which makes identification of a separate category of timbre from a western perspective nonsensical is also a significant contributor to that which makes shakuhachi timbre what it is. Noise and note are one and the same, and are the result of correct playing process in the here-and-now. Furthermore, this is an aspect of shakuhachi sound which has attracted much interest, particularly when connected to the widespread popular belief in Japan of the Japanese having a special relationship with nature:

> The sound of such instruments [as the biwa and shakuhachi] are produced spontaneously in performance. They seem to resonate through the performer, then merge with nature to manifest themselves more as a presence than as existence. In the process of their creation, theoretical thinking is destroyed. A single strum of the strings…is too complex, too complete in itself to admit any theory. (Takemitsu 1995:51)

The notions of *ichion jōbutsu* merge with the Shintō reverence for nature and the cultural preference for thick, hoarse timbres, with nuanced timbral change over time, to produce the distinctive shakuhachi sound. In practice, this is realised in a solo instrument with considerable local variation between shakuhachi styles and individual players, even though these differences are still operating within a common modus operandi.

4.4.2 *Muraiki* and other shakuhachi techniques

One of the most distinctive timbral techniques is the previously mentioned *muraiki*, a hoarse breathy inharmonic attack on a note, similar to the raspiness of biwa *sawari*, which is gradually lessened to produce a clear tone. To produce *muraiki*, the player must relax their top and bottom lip muscles (orbicularis orbis), especially the lower half. The extent to which the muscle is relaxed will dictate the

amount of *muraiki*; the more the muscle is relaxed, the greater the *muraiki* and vice versa, while the extent to which *muraiki* is played and rate at which it diminishes will depend upon the music.

As mentioned in Lependorf (1989:237), whilst some *honkyoku* performers make extensive use of *muraiki*, for other performers *muraiki* is a gesture to be used sparingly, and mostly on note onsets; the use (or abuse) of *muraiki* can evoke strong responses in players and listeners alike. Some associate the prominence of *muraiki* with the approaches of Watazumi, an infamous and influential maverick shakuhachi player of the twentieth century, who advocated a focus on breath and considered there to be four types of shakuhachi breath: rough breath, strong breath, soft breath, and weak breath.[136] *Muraiki* has always been a technique, but musicians vary in their approach to it, both individually and with reference to the genre in which they are playing. As a technique it has helped to define the distinctive sound of the shakuhachi both in Japan and elsewhere, for listeners and composers alike.

I have used *muraiki* as a generic term to refer both to *muraiki* itself and several very similar techniques. Miki (2008:43–44) lists types of *muraiki* as *muraiki*, *kazaiki* and *sorane*. *Kazaiki* is a stronger version of *muraiki*, while *sorane* is softer and is used with pitches of shorter duration. All three types of *muraiki* produce inharmonic and harmonic partials,[137] thus obscuring the fundamental pitch of the note onset to a greater or lesser degree, and over a longer or shorter duration. Of note is that while Minoru Miki (2008) may have compiled lists of techniques, not all of these techniques will be used by all styles and genres of shakuhachi playing all of the time. Nevertheless, *muraiki* is commonly used across most schools of shakuhachi performance, sparingly, prolifically, or somewhere in between.

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[136] http://www.komuso.com/people/people.pl?person=1222 (19 Jun. 2015).

[137] Partials are the acoustic terms for harmonics or overtones. I refer to partials because the term is more impartial as you can have inharmonic as well as harmonic partials and undertones as well as overtones. A harmonic partial is an integer multiple of the fundamental frequency of the pitch, while an inharmonic partial is not an integer multiple of the fundamental frequency (Benade 1976, Roederer 1973, Sethares 1999).

In terms of timbre, dynamics and microtonal movement, the potential of the shakuhachi far exceeds that of a western art flute:

> … the expressive possibilities of the shakuhachi are phenomenal when compared to Western woodwinds. (Miki 2008:43)

Many of these expressive possibilities are timbral, often deriving from combinations of techniques which include *portamenti*; different types of *vibrato*; the changing of timbre and dynamics of a note over time; ways of covering, moving across and hitting a hole; fingering patterns that generate trills, often with harmonics, such as *koro-koro* (Miki 2008:49). Whilst many of these techniques are common across different *ryū*, their interpretation and execution may exhibit slight variations, such as the finger-hole and corresponding pitch on which a quick hit is performed, or whether a particular *portamento* is usually located at the beginning of, or during a note.

Some techniques are obvious to the listener, such as the breathy effect of *muraiki*, while others are more subtle and may result from the context of a particular fingering/head position in the music. While much of the nomenclature is common across *ryū*, it is not standardised so there are variations in the terminology for the same technique, and variations in the practice of an identically named technique, as well as variation in the representation of these techniques in notation. From sources such as Blasdel (1988:23–72), Miki (2008:35–54) and web resources indicated at the close of the list, I have compiled some of these common techniques employing timbral variation, and they are organised according to their primary physical mechanism:

Fingering:

1. ***Kara-kara***: a tremolo in a high register, played by rapidly hitting hole 1 while performing a *glissando* between two notes, or a percussive effect achieved by hitting the hole 1.
2. ***Koro-koro***: a tremolo on two fingerings, in which the fingers hit the finger–holes in an alternating pattern with a slight latency that generates different timbres and harmonic frequencies.

Head movement:

3. ***Meri***: lowering the pitch by tilting the head down, which may also involve timbral change. This is a very common technique and is often used in conjunction with particular fingerings, such as *tsu-no-meri*, where the player fully covers all the finger–holes except for a partial cover over hole one at the base of the flute whilst lowering the head. The resultant pitch has a distinctively soft timbre.
4. ***Kari***: raising the pitch by tilting the head back. For illustrations of *meri*, *kari*, and normal head angle differences, see Blasdel (1988:41).
5. ***Suri***: a slide - a passing note with a short *portamento* to an intermediate pitch.
    a. ***Suri-age***: an upward slide.
    b. ***Suri-sage***: a downward slide.

Head/body:

6. ***Yuri***: *vibrato* by moving the head, while keeping the lips on the mouthpiece.
    a. *Yoko-yuri*: *vibrato* by moving the head horizontally
    b. *Tate-yuri*: *vibrato* by moving the head vertically with more pitch variation.
    c. *Mawashi-yuri*: *vibrato* produced by moving the head in a circular direction.
7. ***Take-yuri***: *vibrato* by shaking the instrument vertically, with more pitch variation.
8. ***Iki-yuri***: abdominal *vibrato*. A.k.a ***komi buki***.

Mouth/breath:

9. ***Muraiki***: overblowing to create a breathy effect. This may be applied at the start of a note or during a note.
10. ***Kazaiki*** (*kasaiki*): strongly overblowing, usually at the start of a note.
11. ***Sorane***: light, short overblowing.
12. ***Tamane*** or flutter-tonguing: like a rolled *r*, which will increase inharmonic noise.

13. ***Komi***: staccato produced by stopping the airflow (See also *iki yuri*/*komi buki*).
14. ***Ma***: lit., in between, space or interval. In musical terms it describes the silence between sound events. This is often described as vacuum plenum, and is an important concept in Japanese musical aesthetics.

Combinations:

15. **Multiphonics**: a contemporary composition technique. As pitches can be unstable and subtle, this should be discussed with the performer.
16. ***Ha-ra-ro***: this phrase, and variations thereof, is common in many traditional shakuhachi works. The pitch of *ha* is adjacent to that of *ra* and *ro*; *ra* and *ro* are the same pitch played with *different fingerings*, which generate a *different timbre*. *Ha* is played as a grace note prior to *ra*. The player repeats the grace note *ha*, then finishes with the *ro* fingering (Blasdel 1988:47).
17. **Timbral and dynamic change over time**: change in timbral and dynamic intensity over the duration of a sustained tone, often expressed in a *crescendo–diminuendo* pattern.[138]

These techniques represent some of the options by which timbral variation may be employed during performance, and they are often used in conjunction with pitch movement, microtonal or otherwise, such as in the *Ha-ra-ro* phrase, or when *portamenti* and *muraiki* are employed together, a technique exploited by Regan in his work *Forest Whispers…*(2008), discussed in Chapter 7. Such techniques may be represented in tablature by graphic notation, or by the term given to the technique in that particular shakuhachi school, often written in *kana* such as メ (*me*), for *meri*. As noted in Chapter 2, not all techniques are written; some may be transmitted aurally, orally and/or via physical demonstration by the teacher and their realisation specific to that *ryū*. Furthermore, the name of technique, written alongside the tablature, does not confer instruction on the means of play; if a

[138] Miki (2008:44-53), Blasdel (1988:40-50), http://www.komuso.com/top/glossary.pl, http://shakuhachisociety.eu/resources/glossary/ (12 Mar. 2015), and personal experience of the author.

person looking at tablature sees *meri*, *muraiki* or *koro-koro* written alongside, unless they are familiar with the action to which it refers, they will not be able to perform it.

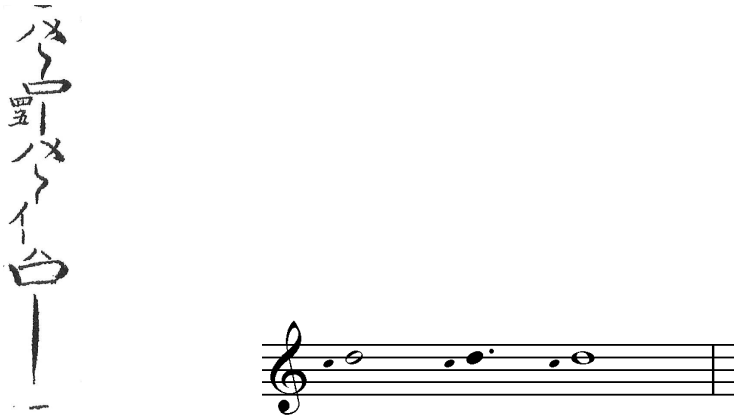
4.4.3 Tablature and notational obfuscations

As can also be seen in this selection of techniques, the fingers do not do all the work for the shakuhachi: head movements are also important. Most *vibrati* are executed via head movements and denoted head angles such as *meri* play an important role in pitch, dynamics and timbral variation, often in combination with fingering change. For example, in the *honkyoku* piece *Tamuke*, there is a phrase similar to the *Ha-ra-ro* construction listed above, in which the same pitch is repeated three times, with a passing note in between the repetitions.

For convenience, let's say the pitch is D5 on a 1.8 instrument, which has D4 as the base pitch. I can play the pitch of D5 with three different fingerings, one of which requires the increased *kari* head angle to regulate the pitch. All three Ds have a different timbre and dynamic, because of the different fingering, and in the final D, the different head angle as well. The timbre moves from semi-smooth, to rougher, to smooth and strong, with an increase in volume with each note, although this is less noticeable than the timbral change. Therefore, the movement of this phrase is through timbral change, rather than pitch; the phrase has a timbral rhythm. The tablature example given of this phrase in *Tamuke* is taken from the *Zensabō-ryū*:[139]

[139] Reproduced with kind permission of Ōkuda-sensei and Kiku Day. The transcription into staff notation is the author's own.

Example 4.1 Comparison of shakuhachi tablature and western staff notation



This phrase exemplifies a core problem of transcription in which information relevant to one tradition is lost in translation to another tradition, while information less relevant to the source tradition may now assume prominence in the tradition into which the source has been translated (Ellingson 1992:163). For the shakuhachi significant musical information is obscured in staff notation, while a misleading privilege is accorded to musical information which is less important and differently organised in the shakuhachi tradition.

On the traditional notation, a combination of tablature and proportional notation is used. The tablature primarily indicates the fingerings, with descriptors for head angle, while lines after each tablature indicator denote proportional duration, with a bend corresponding to a pitch bend and thickening or thinning of lines roughly corresponding to an increase or decrease of intensity/amplitude. Each of the fingerings is conceived as a distinct entity in its own right; using Yung's (1984:505–510) framework, the identity of a fingering pattern is bound to its kinaesthetic and aural element (not visual because it is hard to see what you are doing when playing an end–blown flute).

If I think of this sequence of six musical tones, I do not think of pitch first but of kinaesthetic positions, and I consider those positions intrinsically distinct as: *ha no meri* - ***ro*** (4th & 5th half-holed) - *ha no meri* – ***hi*** (*kari*, fully holed) - *ha no meri* - ***ro*** (all holes covered), with three distinct timbres for the key tones *ro* (4, 5 half-holed), *hi* (fully holed with *kari* head position), and *ro* (fully holed).

Whereas if this phrase is notated using staff notation, values need to be assigned to those elements which are neither privileged nor organised according to the same criteria, while the privileged musical information, namely timbre, is lost as there is no direct or indirect means to represent it. Therefore, the shift to staff notation results in the loss of the representation of the timbral rhythm of the phrase, which in this phrase is the most important feature governing its movement. Meanwhile pitch values need to be added, with the caveat that these are representative, not absolute, as the pitches and the intervals between them depend upon the length of instrument used and the player.

In addition, it is worth reiterating that the pitch and interval system in use is not equal tempered, so pitches and intervals will include non-equal tempered interval sizes, although many twentieth-century instruments are calibrated to equal temperament diatonic pitches (Day 2009:143).[140] Whilst exact measurement of these pitches and intervals is irrelevant, the performer is expected to exercise effective judgement of relative pitch and intervals, priorities noted by Hughes (2000:104), in his analysis of *shōga* mnemonics, and by Phong (1986:61) in his study of the Vietnamese moon lute.

Furthermore, this phrase is from *Tamuke*, which is a *honkyoku* piece and is correspondingly unmetered. Again, durational values need to be assigned to each component in order to represent the phrase according to the current conventions of western staff notation. In doing this, the focus shifts from the relationship of flexible proportional duration between the three tones to fixed values of duration for each tone. To avoid assigning fixed duration, contemporary notation systems that allow for flexible duration could be employed. As with pitch, absolute measurement of each value in a solo unmetered repertoire is irrelevant, however effective judgements of relative duration are essential to the structure of the work.

As pitch representation is the order of the day, with precise unchanging sustained pitch inferred, a western art trained musician will see three unchanging Ds. What

[140] Also see Chapter 2, §2.1.1.

is so challenging or interesting about that? Such a musician would have no idea of timbral and microtonal change over one note, or of the importance of the entrance to and exit from the tone. Extra information is needed to clarify the different fingerings and head positions, which will result in three distinct timbres, which gives the phrase timbral rhythm.

Furthermore, unchanging sustained pitch is not necessarily requisite for sustained shakuhachi pitches; rather the microtonal movement of the sustained pitch is valued as a means of "making one note interesting".[141] While such movement is not always used, it is a common feature of shakuhachi *honkyoku*. Therefore, we can see from this example how the translation to staff notation involves a shift of epistemological priorities, as well as a means of transferring musical information.

A single pitch may also be made interesting by an increase and decrease in the timbral and dynamic intensity throughout the duration of the note. This is a very common shakuhachi gesture, and one that is employed in the improvisation discussed in Chapter 5 and in Regan's work *Forest Whispers…*(2008) in Chapter 7. It is not a technique that would be feasible on a standard western art Boehm flute; the organology of the instrument does not leave much capacity for it, although such an effect, along with *portamenti*, might be more feasible on the bass flute. These are possibilities explored by the British composer Frank Denyer, in his work *The Tender Sadness of Tyrants as they Dance* (1991), discussed in Chapter 6.

All of these gestures are part and parcel of shakuhachi techniques, with *muraiki* the most common technique by which Takemitsu's (1995:64–65) "beautiful noise" will be produced. *Muraiki* and timbral/dynamic change over time are also indicative of the combination of explicit and implicit techniques. *Muraiki* is explicit, with a name, a graphic representation on the tablature, and demonstrations by the teacher, whereas timbral/dynamic change over time doesn't have a name, although it may be proportionally represented on a score by a thickening, then thinning of the line that denotes the proportional representation. Nor is it as

[141] Personal communication, Clive Bell, 2013.

readily demonstrable; it is an implicit technique, which I have denoted as a single gesture, however it is a fundamental part of shakuhachi *honkyoku* and of the "art of making one note interesting".[142]

A further shakuhachi technique employed by many contemporary composers is that of *ma. Ma* refers to the space between the tones, from which the sound emerges and to which it returns, and it is an important shakuhachi technique and concept in Japanese musical and cultural aesthetics; it references a cultural approach to space and has a basic translation of 'between' (Takemitsu 1995:51, 55–56). In shakuhachi music, *ma* is often realised with very gradual beginnings and endings of notes, emerging from and returning to that meaningful emptiness which is often referred to as a vacuum plenum;[143] the player learns to control their lip muscles, mouth shape and speed of breath in order to produce a sound that emerges very subtly from silence, with a *crescendo* as required, followed by a *diminuendo* return to the *space-between-the-sounds* (Malm 2000:172). The western art music corollary is *niente*, however *niente* is simply a technical direction that the musician should let the sound *diminuendo* into silence, rather than representing an aesthetic and referencing the silence itself as significant.

4.4.4 Discussion

As we have discussed, these techniques have emerged from a repertoire that evolved from a distinctive combination of Zen Buddhism, infused with Shintōism, and cultural preferences for "beautiful noise", all of which interact with and reinforce each other. Furthermore, the overlap between the general Japanese arts, belief systems, other musical traditions and the shakuhachi highlights the intersection between these general timbral preferences and aesthetics, and the musical values associated with the shakuhachi.

This is useful because there is a casual tendency for the range and close attention to timbre to be seen as exclusive to the shakuhachi. As we can now see, close attention to timbre is not solely the province of the shakuhachi. There is a general

[142] Clive Bell, personal communication 2013.

[143] http://shakuhachisociety.eu/resources/glossary/ (18 Jun. 2015).

concern with timbre across East Asia, with a preference for hoarse, thick timbres in Korean and Japanese music. In Japan, this concern with timbre is common to many traditional genres, in addition to preference for hoarse, thick timbres that is evident across genres, illustrated by the table below:

Table 4.1 Rough timbres in Japanese music traditions

Genre/instrument	**Prominent/ common rough timbral technique or effect**
nō	*Sabi*
Min'yō	*Tsuchikusai*
Biwa, shamisen	*Sawari*
Shakuhachi	*Muraiki*

Within the common concern for timbre, the range of effects in shakuhachi technique and the manner in which they are applied is distinct to the instrument, and is a product of the unique Zen-influenced environment in which the shakuhachi evolved. It is this range and realisation of timbral expression which has appealed to contemporary western art-trained composers, such as Marty Regan and Frank Denyer, who have created innovative cross-cultural works using a variety of approaches to the shakuhachi. They have investigated timbral, microtonal, *vibrato* and other shakuhachi techniques with particular instrumental combinations and notation in cross-cultural music environments that have grown since their tentative inception during the early twentieth-century in Japan.

4.5 Conclusion

As we have seen through this survey, a concern with timbre as a key epistemology is found in Japanese and other East Asian musics in a wide range of musical contexts, from tablature and vocal taxonomies to the influence of *sawari* upon the organology of the Japanese biwa and shamisen. That such detailed discrete categories of timbre exist suggests a keen focus upon timbral distinctions and timbre as a core category, whereas in mainstream western art music traditions, a

clearly defined equivalent status and systematic organisation of timbre as a part of core musical techniques is rare, although the manipulation of timbre has been prominent in the field of electro-acoustic composition (Griffiths 1994:146–159, Appleton 1986:280–283).

Furthermore, in East Asian genres such as *p'ansori*, biwa and shamisen, and shakuhachi, noise that is "matter out of place" (Douglas 1984:36) in western art music is not only preferred but is considered beautiful and this preference for Takemitsu's 'beautiful noise' (1995:64–65) is common across many Japanese genres and is not restricted to music. This is the context in which the shakuhachi sound evolved with its distinctive privileging of timbre, including timbral noise, on changeable pitches in an unmetered context as a desirable part of the performance, against the stable diatonic pitching and rhythm of western art music. Can two such contrasting musical traditions meet even when western art music composers have been fascinated by the timbres of the shakuhachi?

In the following chapters we consider contemporary contexts in which these two distinctive musical traditions have indeed met in a common space, firstly through Seki and Tanaka's improvisation on a plainchant, then through the work of two contemporary composers who have explored the use of the shakuhachi in a cross-cultural context: Frank Denyer's *The Tender Sadness of Tyrants as they Dance* (1991), and Marty Regan's *Forest Whispers…*(2008). This exploration of contemporary cross-cultural compositions for the shakuhachi and its timbre introduces a key theme of this study; positioning shakuhachi timbres as gestures so as to frame a musical discussion of these compositional meeting–spaces.

5 Analysing gestures in Jordi Savall's shakuhachi and biwa improvisation of *O Gloriosa Domina* (2011)

5.1 The context of the *O Gloriosa Domina* plainchant

The cultural exchanges between the Jesuits and the Japanese produced the earliest known encounters between Japanese and Western classical music (Harich-Schneider 1973:436–493).[144] These encounters occurred during the international expansion of the Jesuit movement during the sixteenth and early seventeenth centuries (MacCulloch 2009:707), when a Jesuit mission on board a Portuguese trading ship and led by Francis Xavier arrived on the southern Japanese island of Kyūshū in 1543 (Jansen 2000:5). Xavier and his fellow Jesuits arrived in Japan in 1549, at a time when the country in the throes of internecine warfare between feudal lords (Gordon: 2003:9–19, Totman 2000:161–174, 203–224). By the end of the century had more than 300,000 converts, largely due to Xavier's intent to take Japanese culture seriously and meet the Japanese on their own terms, albeit in concert with proselytising.

As the reputation of the Jesuits spread and their political power increased, worsening political relations with the shōgunate rulers resulted in the expulsion of the Jesuits and other missionaries by the 1630s, although a small community of non-proselytising traders were allowed to remain with restrictions. The expulsion of all missionaries and restrictions on foreign trade ushered in a long period of official isolationist policy in Japan, which only came to an end in the mid-nineteenth century with the collapse of the Shogunate and the inception of the Meiji Restoration.[145]

In 1605, during the peak of the Jesuit mission, an order of service was published in Nagasaki, known as the *Manuale ad Sacramenta* (Harich-Schneider 1973:473, Jordi Savall)[146], which is purported to have contained nineteen religious songs including

[144] See Chapter 2, §2.2.1.

[145] See Chapter 2, §2.2.2.

[146] Described in the sleeve notes accompanying the CD *Hispania & Japan: Dialogues*, p. 9.

a Spanish hymn version of the text *O Gloriosa Domina*[147] and also marks the first documented appearance of western music in Japan. This Spanish hymn formed the musical basis for a contemporary collaboration of Spanish-Japanese music, which included shakuhachi improvisation based on the chant. This project was directed by the noted Catalan performer-composer of Renaissance music, Jordi Savall (b.1941), and grew out of a cross-cultural project directed by him in 1996 to mark the quincentenary of the arrival of the Jesuit priest Francis Xavier in Japan.[148]

In 2006 most of those musicians reunited with a series of concerts to mark the quincentenery Francis Xavier's birth, and his role in the inception of Japanese–Spanish ties during the sixteenth century. The project was also recorded and released as *Hispania and Japan: Dialogues*. (イスパニアと日本の 対話 – *isupania to nihon no taiwa*). The dialogues comprise a number of works performed by: Jordi Savall's Hesperion XXI ensemble, soloists from La Capella Reial de Catalunya, the Japanese musicians Ichiro Seki (shakuhachi), Yukio Tanaka (*Satsuma-nishiki* biwa)[149] and Hiroyuki Koinuma (*shinobue, nōkan*), and several musicians on Indian instruments (*sarod* and *tablas*).

The works include improvisations, vocal music (Gregorian chant and a Chinese hymn), and instrumental music, including Japanese works. The instrumental music comprises solo and ensemble performance on Renaissance, Japanese and Indian instruments, including vihuela de mano (Spanish lute), chirimía (Renaissance oboe), biwa (Japanese lute), shakuhachi, the *nōkan* and the *shinobue* (both Japanese transverse flutes),[150] *sarod* (fretless lute of North India) and *tablas* (a pair

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[147] Jordi Savall's CD notes cites nineteen songs in the *Manuale ad Sacramenta*. The *Manuale ad Sacramenta* (Nagasaki 1605) held by the British Library contains seventeen songs, but not the *O Gloriosa Domina* chant.

[148] *Hispania and Japan: Dialogues* (2011), SACD. CD progamme notes.

[149] Yukio Tanaka plays a five-string, five-fret *satsuma-biwa*, and was taught by Kinshi Tsuruta (see Chapter 4, §4.3.1): http://www.bmop.org/explore-bmop/musicians/yukio-tanaka (17 Jun. 2015).

[150] The *nōkan* is a transverse bamboo flute used in nō theatre as part of the instrumental ensemble. *Shinobue* is a transverse bamboo flute used in ensembles of various genres including festival music, *kabuki* theatre music and its derivative long song genre, *nagauta*. For more detail see Malm (2000:133-137), Miki (2008:28-34), Takanori (2008:127-144).

of tuned membranophones used in North Indian classical music), as well as music by the Hesperion ensemble and the choir. The shakuhachi is used on three works, including the opening and closing works of the programme. Ichiro Seki opens the programme with a shakuhachi solo improvisation loosely based on the *O Gloriosa Domina* chant, which is followed by a vocal rendition of the hymn *O Gloriosa Domina*.

On Track 7, the shakuhachi is combined with the biwa in a further improvisation on *O Gloriosa Domina*, and Ichiro Seki concludes the programme with a performance of the shakuhachi *honkyoku* work, *Reibo*. Throughout most of the programme, Japanese and Spanish players perform in turn: The performers of Japanese instruments play versions of *O Gloriosa Domina* and Japanese works such as *Honnōji*, *Shino no Netori* and *Reibo*, whilst the Spanish and other musicians perform sacred works and secular works including *Differencias I* and *II* (Variations I and II) on *O Gloriosa Domina* written by the Spanish vihuelist and composer Luys de Narvaez (fl. 1526–1549).

Luys de Narvaez[151] was born in Granada, possibly around the time Granada was taken by the Catholic monarchy,[152] or soon after. He was a Spanish composer and vihuelist attached to the office of the Secretary for Charles V, and later to the Royal Chapel and to Phillip II, son of Charles V. His best-known work, *Los seys libros del delphín* (Valladollid, 1538) is a compendium of works for vihuela, on which he was also a noted improviser. The collection includes six *Differencias* (Variations)[153] for *O Gloriosa Domina*, with the first line of the hymn variant appearing at the head of each *Differencia*. In all cases the opening two notes of the hymn span a fifth, from the tonic of D to A, and imitative phrases of this opening can be found in the works.

[151] http://www.oxfordmusiconline.com/subscriber/article/grove/music/19577?q=Narvaez&search=quick&pos=1&_start=1#firsthit (17 Jun. 2015).

[152] The kingdom of Granada was the last outpost of Al-Andalus, and was taken by the Catholic monarchs Ferdinand and Isabella, in 1492, ending nearly 800 years of Muslim rule.

[153] The variations represent the first known publication of lute variations and tablature with tempo markings – see footnote 148 for weblink.

Rhythmic, tempo, texture and cantus firmus placing provide the variation between the *Differencias* (de Narvaez, Pujol 1945).

O Gloriosa Domina was allegedly well known at the time, which suggests a basis for its reported inclusion in the Jesuit *Manuale ad Sacramenta*, published in Nagasaki. It remains unclear whether the version used in the *Manuale ad Sacramenta* referenced de Narvaez's work, or whether the hymn was an extant chant. As mentioned, a copy of the *Manuale ad Sacramenta* is held by the British Library, although this version does not appear to contain *O Gloriosa Domina*, which raises questions over the number of versions published and the consistency of material in the publications. Whilst it would be interesting to investigate the chant origins of *O Gloriosa Domina*, and the discrepancies between publications, to do so would have been beyond the parameters of this study, so may be a project for future research. Although the available *Manuale ad Sacramenta* does not contain the hymn, the British library holds de Narvaez's vihuela compendium, *Los seys libros del delphín*, which includes *O Gloriosa Domina Differencias*.

Los seys libros del delphín was republished in 1945 by Emilio Pujol, and contains most of de Narvaez's works, with fifty–two compositions listed in the six books (seys libros): *Fantasias*, *Canciónes*, other *Differencias,* and miscellaneous works, with some of his works listed as arrangements of music by other composers: Josquin (six works), Gombert (two works) and Richafort (one work). Book 4 contains the *O Gloriosa* set, with Narváez listed as the sole composer. Unusually amongst his corpus, the *O Gloriosa Domina Differencias* include two variations (the second and third) written for three and two voices respectively; the only other example of Narvaez writing for more than one voice is in the set of *Differencias* for *Sacris Solemiis*, in *Differencias* five and six (de Narvaez, Pujol 1945).

The Marian hymn text *O Gloriosa Domina* is attributed to the prolific poet, Venantius Fortunatus (c.530–609) and was written as the second part of the hymn *Quem terra, pontus, aethera*. The text became a popular hymn in its own right, with many chant settings and possible inclusion in Lauds. Nearly a thousand years later *O Gloriosa Domina* was apparently a popular hymn in Spain. It is possible that the

text was set to extant Gregorian chant traditions,[154] or to the separate Mozarabic (Old Hispanic/Visigothic), and Gallican (Gaul) chant traditions, two varieties of chant which shared features in common, but were distinct from Gregorian chant, with different modal systems of pitch and melodic organizations (Mckinnon, Teitler 2008:55).

Mozarabic chant was the widely prevalent chant of early Christian Spain, prior to conquest by the Umayyad Caliphate of Damascus in 711C.E., and was allowed to continue under Umayyad and Abbasid rule;[155] the term Mozarabic refers to Christians living under Muslim rule (Hiley 1993:558). In 1085 the central Spanish city of Toledo, former capital of the pre-Muslim Visigothic Kingdom, was taken by Alfonso VI during the Reconquista (Brown 1988:207, Morris 1988:207); Mozarabic chant was suppressed, and replaced with the Roman rite using Gregorian chant, although a small number of churches in Toledo were allowed to continue practicing the Mozarabic rite (Hiley 2993:558). Local variations between Mozarabic rites included differences of chant, chant music, pitch/modal organization, and notations, and these distinctions are generally recognised in two principal versions known as Toledo A and Toledo B.

During the late fifteenth and early sixteenth centuries, Cardinal Jimémez de Cisneros attempted to restore the rite, and published a missal and breviary in 1500 and 1502, based on the three extant Toledo B sources; however, his publications show little correlation with early sources (ibid.). While the veracity of the newly published works in comparison to their ancestors, was, and is, much debated, this could, potentially, have been the source for de Narvaez's vihuela works. Today, a Mozarabic corpus comprising more than twenty major sources is maintained in Toledo, however only the very small proportion of the scores written in Aquitanian transcribable notation are accessible, as the vast majority of the chants are written non-diastematic neumes, which do not represent pitch effectively enough to be

[154] Thus far, preliminary searches of Gregorian chant indexes have not indicated the presence of *O Gloriosa Domina*.

[155] http://www.oxfordmusiconline.com/subscriber/article/grove/music/19269?q=mozarabic+chant&search=quick&pos=1&_start=1#S19269 (4 Sep. 2013).

reconstructed (Hiley 1993:558). Nonetheless, such chants that are transcribable, together with extensive knowledge of performance practice, could have been a source for the *O Gloriosa Domina* chant used by Jordi Savall in the commemoration of Francis Xavier, along with de Narvaez's lute works.

For the purposes of the recent adaptation and performance of *O Gloriosa Domina* by Jordi Savall, Luys de Narvaez's compositions on *O Gloriosa Domina* represent a valuable resource, for a number of reasons. Firstly, Savall performs de Narvaez's *O Gloriosa Domina Differencia* variations in the Dialogues; Track 9 is *Differencia II* (for three voices in a wind arrangement), while Track 16 is *Differencia I* for solo vihuela. Secondly, there is a clear melodic correlation between the de Narvaez's lute *Differencias* and the vocal performance of *O Gloriosa Domina* by Hesperion XXI.[156]

Thirdly, de Narvaez (fl. 1526–1549) and Francis Xavier (1506–1552) were contemporaries, and it is possible that Francis Xavier was aware of the work of de Narvaez, given the prominence of de Narvaez in the Iberian Peninsula at the time of Xavier's voyage to Japan. Francis Xavier, who was born in Navarre in northeastern Spain, joined the Jesuits in Paris and trained in Rome, then travelled to Portugal to join a ship in order to begin an overseas mission in Asia. Xavier's mission left Portugal for Asia in the 1540s, shortly after the publication of de Narvaez's vihuela works in 1538, and nearly forty years after de Cisneros' publication of the Mozarabic rite.

Whilst the musical structure and religious ideals of this performance seem very different to the Buddhist heritage and repertoire of the shakuhachi, the original function of the shakuhachi as a ritualistic meditative tool in Buddhism is analogous to the ritualistic devotional function of plainchant. Furthermore, the traditional performance of both media is mostly monodic: solo for the shakuhachi and unison for the chant, however the emphasis on and range of timbral techniques in the shakuhachi tradition is very different to the performance of the western chant and

[156] I sought clarification on this and on the origins of the chant by emailing Jordi Savall, however I have not received a response.

to the lute *Differencias*. On Early and Renaissance fretted lutes and wind instruments, the technique now known as *vibrato* was not always feasible, and furthermore, on Baroque orchestral instruments *vibrato* was considered an ornament to be applied sparingly and was viewed as the preserve of the soloist (Kelly 2011:86, Quantz 1985:205–294).

In a comparable manner to the shakuhachi, the biwa had also evolved as a solo tradition and had an association with the priesthood, although the biwa developed as an accompaniment to secular sung narrative and the Buddhist affiliation became far less prominent in the biwa corpus and performance context than for the shakuhachi. Moreover, like the shakuhachi the timbral expression of the biwa is some distance from comparable lute traditions in the west, which is immediately obvious when the sound and organization of the biwa and lute performances are heard. As the biwa is played between the high frets on very flexible strings, the player has many options for microtonal *portamenti* and techniques such as *vibrato*, in contrast to the historical western lutes, which have few, or no, options for such techniques (Kelly 2011:86).[157]

Much of the programme alternates Japanese and western Renaissance instruments, with the western sacred theme providing the source for most material for both Japanese and Renaissance performers, with additional Japanese melodies, and western secular melodies. The North Indian instruments are rarely used and only as part of an ensemble:

[157] See Chapter 4, §.4.3.1.

Table 5.1: Track listing on *Hispania & Japan: Dialogues*

Track	Track description	Instruments
1*	Improvisación on *O Gloriosa Domina*	**Shakuhachi**
2	*O Gloriosa Domina* (Gregorian chant)	La Capella Reial de Catalunya
3*	Improvisación on *O Gloriosa Domina*	*Shinobue* and **biwa**
4	*Quod Eva Tristis* II	La Capella Reial de Catalunya
5*	Improvisación on *O Gloriosa Domina*	**Biwa**
6	*Tu Regis Alti Ianua III*	La Capella Reial de Catalunya
7*	Improvisación on *O Gloriosa Domina*	**Shakuhachi** and **biwa**
8	*Patri Sit Paraclito IV*	La Capella Reial de Catalunya
9	*O Gloriosa Domina* Differencia II; Luis [sic] de Narvaez	Hesperion XXI (wind/ brass instruments
10	*O Gloriosa Domina* – Amen	La Capella Reial de Catalunya
11	Himno XX *O Gloriosa Domina*; Venegas de Henestrosa	Hesperion XXI ensemble
12**	*Rangyoku*	*Nōkan*
13	Villancico: *Senhora del Mundo*	Singer, cítara, sarod, tablas
14	*Alba & Rotundellus*; Anónimo	Hesperion XXI wind, percussion
15**	*Honnōji*	Singer, **biwa**
16	*O Gloriosa Domina* Differencia I, Luis [sic] de Narvaez	Vihuela da mano
17**	*Shino no netori*	*Shinobue*
18	Ave María, Anónimo (China), pentatonic	Singer, La Capella Reial de Catalunya, Hesperion XXI
19**	*Reibo*	**Shakuhachi**.

* Tracks using Japanese instruments.

** Tracks where Japanese instruments perform Japanese traditional music.

In total, the programme comprises nineteen items, of which eight use Japanese instruments, including the four works from Japanese repertoires (tracks 12, 15, 17, 19), Nine of the tracks are interpretations of *O Gloriosa Domina* (tracks 1, 2, 3, 5, 7, 9, 10, 11, 12), and these interpretations constitute the chant, improvisations on the chant, and arrangements or performances of de Narvaez's *Differencias I* and *II* for vihuela, and are played by Japanese and western instruments as follows:

Table 5.2: Versions of *O Gloriosa Domina* performed in the *Hispania & Japan: Dialogues* programme

Track	Track description	Instruments
1	Improvisación on *O Gloriosa Domina*	**Shakuhachi**
2	*O Gloriosa Domina* (Gregorian chant)	Vocal – La Capella Reial de Catalunya
3	Improvisación on *O Gloriosa Domina*	*Shinobue* and **biwa**
5	Improvisación on *O Gloriosa Domina*	**Biwa**
7	Improvisación on *O Gloriosa Domina*	**Shakuhachi** and **biwa**
9	*O Gloriosa Domina Differencia II*, Luis [sic] de Narvaez	Hesperion XXI – wind/ brass instruments
10	*O Gloriosa Domina – Amen*	Vocal – La Capella Reial de Catalunya
16	*O Gloriosa Domina Differencia I*, Luis [sic] de Narvaez	Vihuela

La Capella Reial de Catalunya perform the basic Gregorian chant and this performance provides the melodic outline from which other vocal and instrumental arrangements are derived; a transcription of this melody is given in the analysis section. This is expanded upon by the shakuhachi (tracks 1 and 7), *shinobue* (track 3) and biwa (tracks 3, 5, and 7), and by La Capella Reial (tracks 2 and 10), while the de Narvaez *Differencias* comprise a wind/brass arrangement (track 9) and de Narvaez' vihuela version (track 16), as previously mentioned. The vocal setting of *O Gloriosa Domina* text is sung in the Dorian mode and is essentially syllabic, with a melismatic sequence in the final phrase. In addition, the

chant has a distinctive opening of a fifth between the first two notes, D and A. It is worth noting that the three other vocal chants *Quod Eva Tristis II* (track 4)*, Tu Regis Alti Ianua III* (track 6) and *Patri Sit Paraclito IV* (track 8), all use the same basic melody as *O Gloriosa Domina*, with some rhythmical variation in the opening line of *Patri Sit Paraclito IV*. *Quod Eva Tristis* is sung in male unison, while *Tu Regis Alti Ianua III* and *Patri Sit Paraclito IV* are sung by a male and female choir. *Tu Regis Alti Ianua III* is performed in organal motion, with the male voices singing the chant on a monotone, over which the female voices sing the melody, while *Tu Regis Alti Ianua IIII* is performed in unison by the male and female choir.

De Narvaez's *Differencias I and II* have been transcribed into staff notation from tablature and are performed by a vihuela and by a wind/ brass ensemble respectively (de Narvaez, Pujol 1945). Both the vihuela and the ensemble instruments exhibit a homogenous timbre and exhibit comparatively little dynamic, timbral, or microtonal movement during the recorded performance, which is consistent with Kelly's (2011:86) observation on the limited feasibility of such techniques on period instruments; the musical movement comes from diatonic melody, harmony and rhythm, all represented by the score. However, it is worth noting that resonance and timbre were important for bowed string instruments of this time, within the social caveats of ornamental restrictions for orchestral instrumentalists (Quantz, Reilly 1985:233). Nevertheless, de Narvaez's scores do not carry indicators of timbre, dynamics, or any other performance directions, in common with most music scores of this era; the sole performance directions relate to tempo.

Against these performances of the chant by La Capella Reial and Hesperion XXI's de Narvaez *Differencias*, the variations on *O Gloriosa Domina* provided by the musicians performing Japanese instruments provide a distinctive cross-cultural contrast in approach and style, through the use of gestures which are identifiably Japanese, or at the very least, congruent with the Japanese traditions of the instrument. These gestures emphasize timbral and microtonal movement and melodic shape, most noticeably on the shakuhachi and biwa, and suggest both

timbral and melodic trajectories in the chant improvisation, and it is worth reiterating that these are the features attractive to many composers.[158]

Of the three Japanese flute (*nōkan, shinobue,* shakuhachi) and one Japanese lute (biwa) used, the shakuhachi and biwa have the greatest timbral range and register and are used the most throughout the programme. As discussed in the previous chapter, both the shakuhachi and biwa have well-established solo traditions in which timbral and microtonal movement has had a privileged role.[159] By contrast neither the *shinobue* nor the *nōkan* is associated with a solo tradition, nor do these two transverse flutes have as large a timbral, dynamic, and individually effective melodic range as the shakuhachi (Miki 2008:7–11, 25–27).

The shakuhachi is used on three tracks: one solo improvisation on the Gregorian chant, one improvisation on the chant with biwa, and a closing performance of a traditional shakuhachi *honkyoku*, *Reibo*. *Reibo* is a *koten honkyoku*, an archetypal *honkyoku*,[160] albeit one with variations in form, and the title refers to a spiritual quest of some kind, so although the structure, melodic shape and expressive format of *Reibo* are distinct from the western material, it has a spiritual purpose, like the plainchant.[161] Furthermore, the timbral and microtonal gestures used in *Reibo* are found in the shakuhachi improvisations, providing a gestural connection with the *O Gloriosa Domina* shakuhachi improvisations and thus, the overall project.

Meanwhile, the biwa is used on four tracks: three improvisations of *O Gloriosa Domina* – one solo – one improvisation with *shinobue* – one with shakuhachi, while the fourth biwa track is traditional Japanese music, in which the biwa accompanies a singer in a performance of *Honnōji*, a *satsuma-biwa* narrative song[162] recounting

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[158] See Chapter 2, §2.4.

[159] See Chapter 4, §4.3 and §4.4.

[160] *Koten* translates as classic. In the context of *honkyoku* it is used to refer to old, original, or archetypal *honkyoku* and is variously translated as such (Halpern 1999:457).

[161] For a selection of *Reibo* works, see http://www.komuso.com/pieces/index.pl#R (30 Apr. 2015).

[162] http://jtrad.columbia.jp/eng/b_biwa.html (30 Apr. 2015).

the death of the Japanese warlord Nobunaga at *Honnōji* temple in 1582, in an attack by a vassal lord (Jansen 2000:15–16). This historical biwa narrative recounts events that are contemporary with the sojourn of the Jesuits in Japan during the sixteenth and early seventeenth centuries; indeed the Jesuit Luis Frois provides eyewitness accounts of some of Nobunaga's activities (Jansen 2000:14–15), supplying a direct link between the Jesuits and Nobunaga. As with the shakuhachi, timbral gestures used in *Honnōji* are present in the *O Gloriosa Domina* biwa improvisations and in the sole shakuhachi–biwa improvisation, in which the accompanying role of the biwa is akin to the role of the biwa in its traditional narrative song setting.[163]

This shakuhachi–biwa improvisation represents the greatest dichotomy between west and east as the improvisation is recognisably derived from the chant, whilst simultaneously departing a considerable distance from it with identifiable gestures from the traditional Japanese shakuhachi and biwa genres. These techniques can be defined as gestures for several reasons: they are bound expressive units (Ben-Tal 2012:251), which are significantly foregrounded (Hatten 2006:8), and these units are not performed all the time.

Rather they are added at different points in phrasal articulation to provide momentum to both sound and melody at local phrasal level (gestural rhythm) and to the overall timbral trajectory of the work. Furthermore, these gestures are also integral to the internal phrasal structure of the improvisation. Overall, the improvisation is structured through a series of phrasal exchanges, and calls and responses, between the shakuhachi and the biwa. The shakuhachi opens each phrase, the biwa concludes it and introduces the next phrase, which is opened by the shakuhachi and so on. There are ten shakuhachi phrases and nine biwa responses; the shakuhachi opens and closes the improvisation.

[163] See Chapter 4, §4.3.1.

5.2 The instruments used in the improvisation

While the context, features, and techniques of the biwa (plucked lute) have been outlined in Chapter 4,[164] it is worth giving a recap here. The shakuhachi and the biwa both originated in China and arrived in Japan with the *gagaku* orchestra, and both evolved from subsequent associations with the priesthood, although they did so in separate directions; they have no performance tradition in common. While the shakuhachi remained strongly associated with the Buddhist priesthood for centuries, the biwa evolved as a secular instrument used in narrative traditions to heighten the dramatic impact of the narrative.

This emphasis was achieved with sequences and techniques which punctuate the sung phrases and mimic textual impetus to emphasize a moment, thus; the musical context of the instrument is gestural in meaning and musical form. The evolution of the biwa in this context has generated a wide variety of timbral and microtonal techniques in traditional and contemporary repertoire, discussed below, which are enhanced by the "beautiful noise" of sawari, an inharmonic buzzing sound intrinsic to the biwa aesthetic (Takemitsu 1995:64–65).[165]

Whilst the biwa and the shakuhachi do not share a tradition, they do share aesthetic approaches to timbre and microtonality.[166] In this improvisation each instrument uses timbral and microtonal gestures to generate a gestural rhythm within a phrase and to forge connections with the other instrument in phrasal exchange. The dissemination of these phrasal gestures generates overall momentum to a gestural trajectory which is coupled with melodic development of the chant.

On the shakuhachi, Seki uses conventional techniques, primarily *vibrato*, *muraiki*, and *portamenti* to improvise around the melodic material of the plainchant; this is not a work employing more specialist techniques such as *koro-koro*. Tanaka, meanwhile, uses a variety of timbral gestures on the biwa including strike, scrape,

[164] See Chapter 4, §4.3.1.1 and §4.3.1.2.

[165] See Chapter 5, §5.3.2.2.

[166] See Chapter 4, §4.

and pluck techniques to respond to, and develop, the gestural rhythm and melodic development of the shakuhachi sequences. The resultant interaction between the two instruments generates gestural rhythm and momentum, which in turn creates a gestural trajectory in this cross-cultural improvisation on a western plainchant.

5.3 Analytical approaches to the improvisation

As notation for Ichiro Seki and Yukio Tanaka's shakuhachi and biwa improvisation of a western plainchant was unavailable, the first analytical question for this work became the form in which musical analysis would be viable: transcription, audio, or both. As analysis of the other two works in this study were predicated on a score; establishing a transcription for this comparatively short improvisation of two instruments would enable analytic parity, thereby bringing the ethnomusicological question of transcription to the fore.

5.3.1 The question of transcription

The transcription of music from one musical culture into the systems of another has long been a cornerstone of ethmomusicological practice, although not without problems and controversies (Ellingson 1992:110–152, Nettl 2005:74–91). Most musical transcription has been into the culturally-specific system of western European staff notation, with explicit or implicit 'adaptations' by which the musical features of the 'other' music could be rendered according to the logic of European staff notation transcriptions and the sensibilities of staff notation practitioners; see Ellingson's (1992) comprehensive review of the history of transcription.

Particularly in the early days of transcription, this often resulted in features salient to the carriers of the music culture, such as types of sound texture, being either adapted or ignored (Nettl 2005:82, Ellingson 1992:128). While this paradigmatic problem was recognised early on, attempts to circumvent such difficulties were varied in their success and in their approach. Despite such concerns Ellingson notes that, "The problems of transcription are the problems of ethnomusicology itself" inasmuch as they are an effort to "portray musical sound as an embodiment of musical concepts held by members of a culture" (Ellingson 1992:110, 146–147),

or rather, to recognise and engage with musical differences as part of a cross-cultural dialogue.

Transcription evolved within an ethnographic context as a means of capturing a musical performance that may not be notated or otherwise recorded; as technology improved throughout the twentieth century more options for recording sound became available, alongside experiments in circumventing the hegemony of the staff notation paradigm with alternative methods of representation (Nettl 2005:82–91, Ellingson 1992:125–147). Nonetheless, transcription remains useful as a means of engaging with and learning about a music and as a tool with which to approach specific problems (Nettl 2005:89), particularly as the research paradigm has shifted to accommodate "Conceptual transcription" (Ellingson 1994:141–142) in which "essential features of the music are presumed to be already known, through fieldwork, performance lessons…. The transcription then becomes a means…of defining and exemplifying the acoustical embodiment of musical concepts essential to the culture and music" (ibid.).

Both the shakuhachi and the biwa have well-established methods of symbolic representation (Miki 2008:35–54, 71–87, Cronin 1994, Lependorf 1989, Denyer 1994, Takemitsu 1967, Ueda[167]) by which these essential acoustical embodiments of musical concepts can be rendered in staff notation. The staff notation representations come with caveats.[168] They are, however, a means by which the acoustical embodiment of the essential timbral epistemologies can be represented in staff notation without too much loss or relegation in translation from one epistemological paradigm to another (Ellingson 1994:128).

Furthermore, in the context of this study, transcription is not about describing a previously unrecorded musical style, rather it is taking Ellingson's (1994:141–142) approach of conceptual transcription in addressing a particular problem, that of representing privileged musical modalities which have been translated into the musical paradigm of a different culture. More specifically, the focus is on extracting

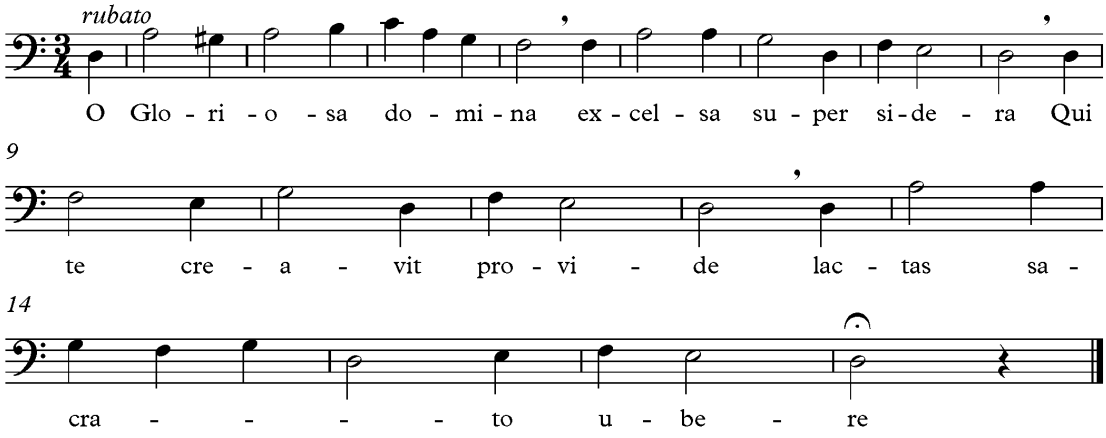
[167] http://www.junkoueda.com (8 Jul. 2015).

[168] See Chapter 4, §4.4.3.

and representing the salience of timbral and microtonal gestures within a cross-cultural improvisation, in which Japanese instruments improvise on a western plainchant.

In line with Ellingson's (ibid.) precepts of conceptual transposition, the successful application of these adaptive strategies is dependent upon my knowledge of the practices of the shakuhachi and biwa. This includes an understanding of the acoustic embodiment of the essential musical characteristics and epistemological priorities of the instruments,[169] as explored in Chapter 4. With these parameters in mind, I transcribed the shakuhachi and biwa improvisation on the *O Gloriosa Domina* plainchant, using the shakuhachi and biwa conventions referred to above and subsequently discussed in further detail, and the version of *O Gloriosa Domina* sung in unison by La Cappella Reial for comparison with the shakuhachi melodic improvisation. The transcription of the vocal performance of the original chant (CD 2, track 1) by La Capella Reial and the text of the chant is given below:

Example 5.1 Transcription of the *"O Gloriosa Domina"* plainchant (audio recording CD 2, track 2)



O Gloriosa Domina,
Excelsa super sidera,
Qui te creavit provide,

[169] See Chapter 1, §1.1.

Lactas sacrato ubere.[170]

For the transcription of the shakuhachi–biwa improvisation, using staff notation with associated dynamic and expression markers provided an effective means to represent the pitches and dynamics of the melody, with the use of proportional notation to indicate approximate duration and additional symbolic representations to indicate shakuhachi and biwa timbral and microtonal features. The subsequent discussion of these features is framed in the gestural analysis paradigm given in Chapter 1, in which foregrounded (Hatten 2006:8) "bound expressive units" (Ben-Tal 212:251), or gestures, are exchanged or combined in various ways, such as amodal mimesis (Cox 2006:50–55) to give a phrasal gestural rhythm (Tsang 2002:35–36) within the improvisation. This in turn engenders an overall gestural trajectory (McAdams et al. 2004:157). However, the first question of the gestural analysis is not easily separable from the first question of the transcription; namely what constitutes Ben-Tal's (2012:251) bound expressive gestural unit, or to take Hatten's (2006:8) position, when is a feature "foregrounded as significant" and thus becomes a gesture to transcribe?

5.3.2 Transcription and the delineation of gestures

In this improvisation, the demarcation of "bound expressive units"(Ben-Tal 2012:251) "foregrounded as significant" (Hattan 2006:8) has been comparatively straightforward and is discussed in more detail below. The shakuhachi timbral and microtonal techniques were added as the improvisation progressed. None of the gestures used were advanced or untypical in the shakuhachi world and all were known to me through my own experience of playing the shakuhachi. Therefore, my own knowledge enabled me to posit these techniques as potential gestures and identify these gestures in performance. The biwa presented an interesting case study in the application of gestural analysis given its traditional role in providing dramatic emphasis to a sung narrative; its contribution in this

[170] As given in the CD accompanying booklet, and on the following website: http://www.preces-latinae.org/thesaurus/BVM/OGloriosa.html (11 Sep. 2013).

improvisation is entirely gestural and this is considered following discussion of the shakuhachi gestures below.

5.3.2.1 Shakuhachi gestures and transcription

For the shakuhachi voice in the transcription, principal notes are unfilled, while passing notes are black. Representation of shakuhachi gestures such as shakuhachi *vibrato* and *muraiki* was derived from traditional *honkyoku* notation and from graphic symbols and proportional notation systems previously developed and suggested by composers and authors, (Miki 2008:35–54, Cronin 1994, Lependorf 1989, Denyer 1994, Takemitsu 1967). *Muraiki* is represented with a horizontal zigzag pattern, for which the visual size relates to the strength of the *muraiki*, changes of that strength over time, and the duration of the *muraiki*. *Portamenti* and *vibrato* are both represented with proportional lines indicating their approximate pitch, size, and duration, while dynamics indicators are the proportional graphic symbols and abbreviations commonly used in western art music scores.

Of the shakuhachi techniques used (*muraiki*, *vibrato*, and *portamento*), the most obviously timbral feature is *muraiki*, however, *vibrato* also provides timbral variation, whilst *portamento* indicates microtonal movement. A fourth gesture is listed in which timbre and dynamics change during a single tone; this is a gesture common, indeed iconic, in shakuhachi music, but is also elusive to define (Blasdel 1984:214–217, Bell 2013,[171] Gutzwiller and Bennett 1991:36–37), while the fifth gesture is listed as the western art music instruction *niente*. In a *niente* onset and offset "…the tone starts from almost complete silence, without articulation, grows to a *piano* dynamic, and then fades away to almost nothing." (Adler, 2002:208)

While Adler (ibid.) associates *niente* with the clarinet, it is also used for string instruments on which it is eminently feasible. Furthermore, it is a familiar performance dynamic for shakuhachi players and is denoted in shakuhachi practice by the term *ma*, indicating the effect of emerging from or diminishing to

[171] Personal communication with Clive Bell, 2013.

the *space-between-the-sounds*, or vacuum plenum as it is often known.[172] Thus, unlike *niente*, in which the focus is upon the sound which either diminishes until the sound is absent, or emerges from that absence, in *ma* this space *between* the notes is as meaningful as the sound itself.

5.3.2.2 Biwa gestures and transcription

By contrast to the relatively limited selection of shakuhachi timbral gestures in this improvisation, the biwa uses a more extensive selection of timbral gestures. These gestures were developed further during the twentieth century emergence of the biwa as a concert instrument, a period in which new biwa tunings, designs, and musical styles and techniques evolved, many of them spearheaded by Kinshi Tsuruta and her students Yukio Tanaka and Junko Ueda. Moreover, Ueda presents a clear and extensive range of both traditional and contemporary techniques on her website from which we can see that the contemporary biwa has an impressive array of strike, scrape, and strum techniques.[173]

Strike techniques, in which the body of the instrument is struck by the plectrum, are common in the Satsuma repertoire and have traditional and contemporary variants. In traditional repertoire, these strike gestures were performed in combination with a string pluck, within the context of *senritsukei* (melodic patterns) accompanying the sung narrative. Contemporary strike gestures evolved in line with the emergence of the biwa as a concert instrument, and include the use of the strike as a standalone technique, where it had previously been combined with a pluck. The contemporary scraping (rubbing) techniques have been grouped by Ueda into two types, both of which will produce a scratchy, inharmonic sound: scraping the plectrum up or down as a single movement across the strings, or scraping the plectrum horizontally across the strings.[174]

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[172] See Chapter 4, §4.4.2.

[173] http://www.junkoueda.com/vocab/ (30 Apr. 2015). Also see Chapter 4, §4.3.1.1 and §4.3.1.2.

[174] http://www.junkoueda.com/vocab/cont/pluck.html , http://www.junkoueda.com/vocab/cont/rubbing1.html , http://www.junkoueda.com/vocab/cont/rubbing2.html (30 Apr. 2015).

For the biwa notation in the transcription, graphic indicators of biwa strumming, striking, and plucking gestures were derived from the system developed by Kinshi Tsuruta and Takemitsu in *November Steps* (Peters edition 1967) and from notation suggested by the *satsuma*-biwa performer Junko Ueda, on her website. As Yukio Tanaka, the biwa performer in this improvisation, and Junko Ueda are both *satsuma*-biwa performers and were both taught by Kinshi Tsuruta, they share many techniques and approaches. Therefore, Ueda's *satsuma*-biwa staff notation system was likely to, and does, represent many of the same gestures as those performed by Tanaka in this improvisation. For example, although Tanaka uses the traditional technique of a strike in combination with a pluck, he also employs the contemporary standalone strike.

Overall, Tanaka uses a combination of traditional and contemporary gestures including strikes, a scrape along a string, *tremolos*, and plucks, which are detailed in the notation key below and their musical significance is considered in the subsequent discussion. Although it would be interesting to identify all the techniques used as traditional or contemporary, not all of the techniques are readily identifiable from the recording. In a live performance identification would be easier, however for the time being that perspective must be put aside.

5.3.2.3 Notation key and transcription

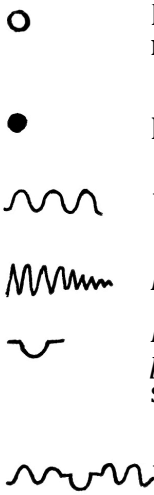
The notation key on the next page is followed by the transcription on the following two pages. The ten phrases of the improvisation are marked 1–10 on the transcription score with timings correlating to the recording of Seki and Tanaka's performance, which is supplied on CD 2, track 2, and based on playback in iTunes version 12.0.1.26. This recording of Seki and Tanaka's shakuhachi and biwa improvisation on *O Gloriosa Domina* (2011) was recorded in 2006–2007 and released in 2011 by Alia Vox, the record label established by Jordi Savall and Montserrat Figueras in 1998 from Jordi Savall's 2006 *Hispania and Japan* project.

From this transcription and recording, the timbral and microtonal gestures of the two instruments were mapped, using Uno Everett's (2002:132, 150) model of

representation.[175] The resultant gestural overview enables a focus on patterns of gestural use at phrasal level and illustrates the overall trajectory of timbral and microtonal gestures in relation to musical structure. Both the transcription score and the gestural overview can also be found on CD 1, tracks 5 and 6, respectively.

Figure 5.1 Notation key for the shakuhachi & biwa improvisation of *O Gloriosa Domina*.

Shakuhachi



Principal shakuhachi note in a phrase

Passing note in a phrase

Vibrato (*tate-yuri*)

Muraiki – breathy sound

Nayashi – down and up *portamento* during a sustained pitch

Vibrato + *nayashi*

Short *crescendo-diminuendo*

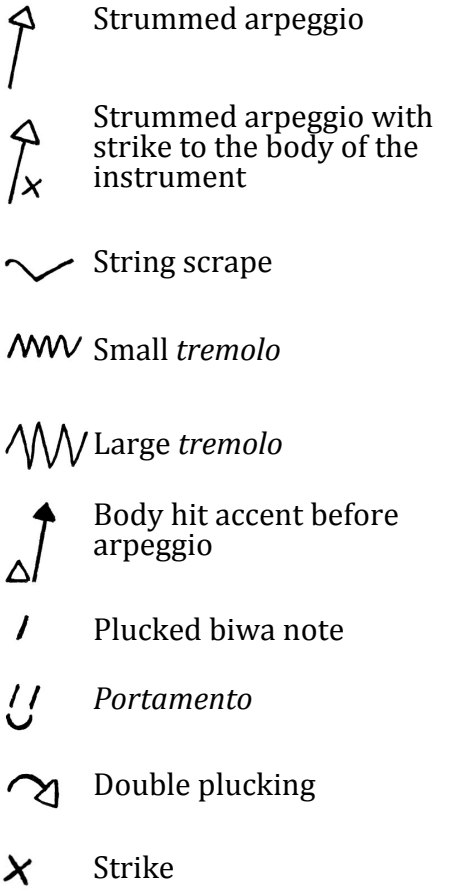
Short *diminuendo-crescendo*

Breath mark

Niente/*ma* –sound fading into silence

Portamento into the start of a tone.

Biwa



Strummed arpeggio

Strummed arpeggio with strike to the body of the instrument

String scrape

Small *tremolo*

Large *tremolo*

Body hit accent before arpeggio

Plucked biwa note

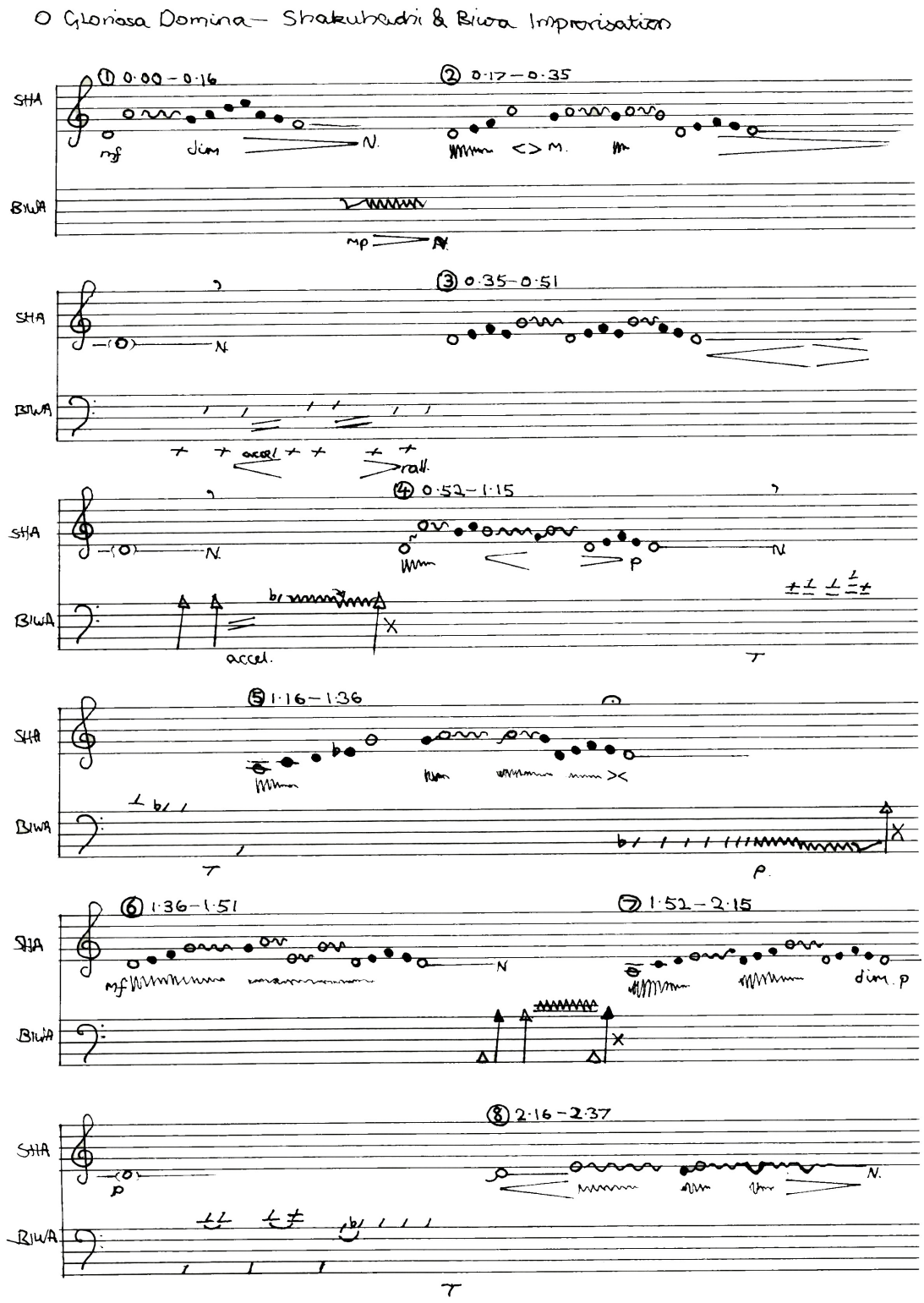
Portamento

Double plucking

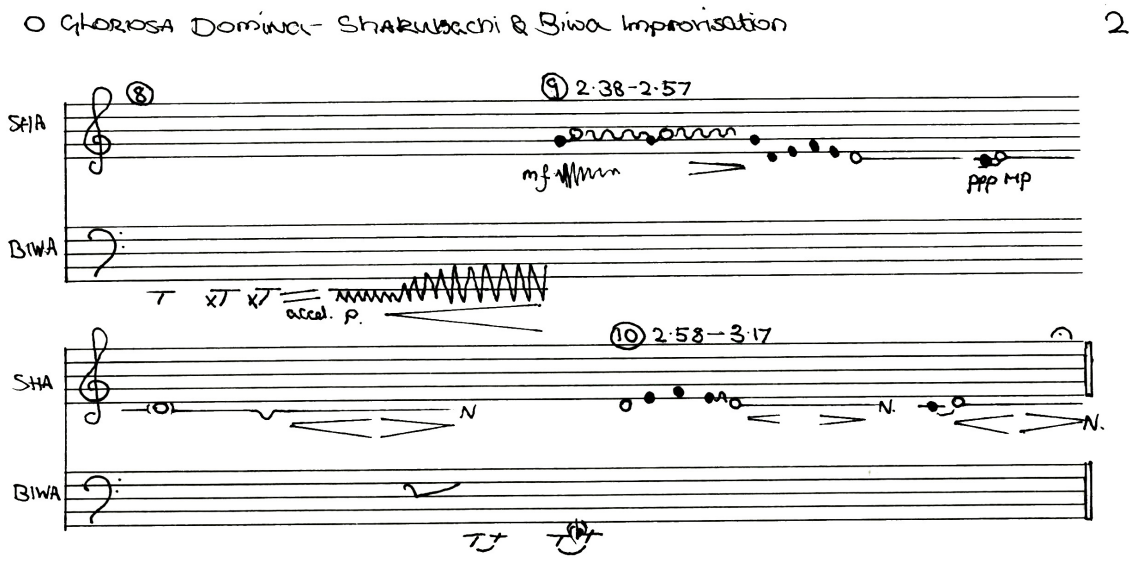
Strike

[175] Chapter 1, §1.4.6 and §1.4.8.

Example 5.2a Transcription p. 1: ***Improvisación sobre "O Gloriosa Domina"***
for shakuhachi and biwa



Example 5.2b Transcription p. 2: *Improvisación sobre "O Gloriosa Domina"* for shakuhachi and biwa



5.3.3 The gestural overview

To get a sense of the overall gestural trajectory and the gestural rhythms at phrasal level, I have constructed the following gestural overview of the shakuhachi and biwa gestures described in the transcription. The overview maps the gestures used by each instrument, phrase by phrase. Phrase numbers and timings correlating to the recording (CD 2, track 2) are listed across the top, while the instruments are listed vertically.

The gestures are listed along each instrumental row in individual text boxes, and the listing correlates with the timings and phrase numbers. Gestures are listed as G1, G2 etc., with a key to the gestures in the bottom right-hand corner of the overview. While each gesture within a phrase is listed in the text box, the gestures are not listed according to their frequency or order within a phrase; even if a gesture occurs more than once within a phrase, it is still only listed once. The musical context of the gestures is considered in the analysis following the overview.

Several of the biwa techniques indicated in the transcription key are combinations of two gestures; for example, a strummed arpeggio is combined with a strike to the

body (a traditional technique in Satsuma repertoire)[176] of the instrument to form a single distinct gesture, which is further distinguished depending on whether the strike is combined with the arpeggio before, during or after it. In the gestural overview, I have listed the individual techniques that comprise these combined gestures as standalone gestures. Therefore, strike (G6) and strummed arpeggio (G7) are listed as distinct gestures which are used in tandem as necessary in the overview (G6, G7). Ordering of the gestures as they are ordered in the improvisation is not part of the gestural overview since the overview is designed to be paired with the transcription from which this information can be obtained.

[176] http://www.junkoueda.com/vocab/trad/ (30 Apr. 2015).

Table 5.3 Gestural overview of *"O Gloriosa Domina"* (2011) transcription (Henderson 2013)

Table 5.3 Gestural overview of *"O Gloriosa Domina"* (2011) transcription (Henderson 2013)

Time:	0:00-0:16	0:17-0:35	0:35-0:51	0:52-1:15	1:16-1.36	1:36-1.51	1.52-2:15
Phrase:	**1**	**2**	**3**	**4**	**5**	**6**	**7**
Shakuhachi:	G1, G5	G1, G2, G5	G1, G5	G1, G2, G3, G5	G1, G2, G3, G5	G1, G2, G5	G1, G2, G5
Biwa:	G8, G9	G10	G6, G7, G9	G10	G6, G7, G9, G10	G6, G7, G9	G10, G11

Time:	2:16-2:37	2:38-2:57	2:58-3:17
Phrase:	**8**	**9**	**10**
Shakuhachi:	G1, G2, G3, G4, G5	G1, G2, G3, G5	G1, G2, G3, G5
Biwa:	G7, G9, G10	G8, G10, G11	

Key to shakuhachi gestures:
G1: *vibrato*
G2: *muraiki*
G3: *portamento*
G4: dynamic & timbral cresc.-dim. within a tone
G5: *niente / ma*

Key to biwa gestures:
G6: strummed arpeggio
G7: strike to the instrument's body
G8: string scrape
G9: *tremolo*
G10: single plucked tones
G11: *portamento*

Analysis of gestures, gestural rhythms, and trajectory

5.4.1 Phrase 1 (0:00–0:16)

In the first phrase, Ichiro Seki opens the improvisation on the shakuhachi and follows the basic melodic shape of the opening phrase of the chant, including its distinctive opening of a fifth, which is an uncommon interval in shakuhachi *honkyoku* and here is from the tone centre of D to A. There is no embellishment of the pitches and limited use of gestures, as can be seen on the overview; only *vibrato* (G1) and *niente* (G5) are listed, and the only iteration of *vibrato* is on the briefly sustained A of the opening fifth. This is followed with a passing note ascent and descent sequence, from A to C and down to the final sustained F of the sequence, as per the chant melody, which is articulated with *niente* (G5).

His use of *niente* on the final tone of the phrase is consistently applied to the closing tone of each phrase, although the duration of each closing tone varies according to the gestural rhythm of the phrase and the overall gestural trajectory. Given the consistency of its use, *niente* becomes an integral part of the improvisational structure. As aforementioned, in traditional shakuhachi music *niente* is known as *ma* and is a common technique, although it is not uniformly applied to the ending of every phrase as it is in this improvisation. In *honkyoku* works, for example, phrases may end with a *niente*/*ma*, a sudden stop, or somewhere in between. Here perhaps, is an example of a cross-cultural modification of style to accommodate the expression of a western plainchant, particularly within the echoing acoustical environment of a church.

As the shakuhachi D diminishes into silence, the biwa overlays the shakuhachi with a short sequence of two gestures; a string scrape (G8) which segues into a small *tremolo* (G9), which increases the gestural rhythm of the first phrase. Echoing the shakuhachi *niente* with amodal mimesis, the *tremolo* of the biwa also diminishes into silence, reducing the gestural rhythm of the phrase before the opening of the second phrase by the shakuhachi.

5.4.2 Phrase 2 (0:17–0:35)

In Phrase 2, Seki adds *muraiki* (G2) to *vibrato* (G1) on the tone centres and extends the melodic shape of the second phrase of the chant. These additions increase the emphasis of the tone centres and expand the overall gestural rhythm of the phrase. Again, the phrase opens on D, but this time with *muraiki* (G2) emphasis, which diminishes over the more gradual ascent to A via passing tones. A is established as the second tone centre with three repetitions by Seki, in which he strikes the adjacent finger hole in between the pitches, giving a brief "blip" (Lependorf 1989:237) of a G passing note. This technique of repeating a tone by rapidly striking a finger–hole is the usual technique by which tones are repeated in traditional shakuhachi repertoire and is known as *atari* (Lependorf 1989:237); tonguing as for a Boehm flute is not used.[177]

The initial A is only articulated through a short dynamic *crescendo–diminuendo*, while the repetitions are emphasized with an expansion of the gestural rhythm, first with *vibrato* (G1), then with *vibrato* (G1) and *muraiki* (G2). In the dissemination of these gestures, therefore, we see an increase of gestural rhythm throughout the sequence, in conjunction with the melodic extension, and a corresponding increase in the overall gestural trajectory from the first phrase. Seki descends to a short sequence of D–E–F–E–D, in which the final D is sustained for longer than in Phrase 2 and ends with *niente* (G5). This sequence is performed without *muraiki* or *vibrato* and becomes his closing motif for most subsequent phrases, and also acts as a cue to Tanaka for the biwa entry.

Toward the end of the shakuhachi *niente* Tanaka enters on the biwa with a gesture of individual plucked pitches (G10) of E alternating an octave apart, which he extends with an increase and decrease in loudness and speed. These single plucked pitches, together with a slow tempo, serve to contract the gestural rhythm, and provide a contrast to the gestural rhythm of the biwa string scrape (G8) and *tremolo* (G9) at the end of previous phrase.

[177] See Chapter 6, §6.3.

Nettl (2005:110)[178] uses terms such as expansion and contraction in conjunction with melodic development. These terms can also be used to describe the movement of the phrasal gestural rhythm; the terms *expand* and *contract* reflect the multi-dimensionality of the timbral–dynamic momentum more effectively than terms such as increase and decrease, which are usually used to describe linear rhythms or melodies.

Although the gestural rhythm of this phrase is lower overall than in Phrase 1, Tanaka expands the intensity of the gesture with the changes in speed and volume of the plucked pitches. In addition, he creates melodic tension with an unresolving biwa pitch of E rather than resolution toward the tone centre of D however this melodic tension is offset through the timbral gesture of softer individual plucked pitches, which lead into the opening shakuhachi pitch of D, at the start of Phrase 3.

5.4.3 Phrase 3 (0:35–0:52)

In this phrase, the gestural rhythm reprises that of Phrase 1 with the use of only two gestures: *vibrato* (G1) and *niente* (G5), while Seki broadly follows the melodic shape of the third phrase of the chant. The opening shakuhachi D is articulated as in Phrase 1 at the start of a short ascent to G, via passing tones, introducing a melodic development from D to the third tone centre of G. This is achieved through two iterations of a short sustained G, to which a judicious use of *vibrato* (G1) adds emphasis.

Seki continues his melodic development in an extended closing sequence before the melody descends to a final sustained D. Unlike the final sustained D of the first two phrases, in which the D diminishes into silence, this D *crescendos* before the *diminuendo* to *niente* (G5), introducing a subtle increase of tension with the development of the dynamics. While the gestural rhythm of this phrase echoes that of Phrase 1 in that the *vibrato* and closing *niente* are the only gestures used, Seki extends his *vibrato* in line with his melodic development in this phrase.

[178] See Chapter 1, §1.4.7.

Thus far, throughout the first three phrases the gestural trajectory of the shakuhachi is relatively low with three gestures sparsely applied, while the ambitus of the chant melody has broadly been followed. In Phrase 1 and Phrase 3, only *vibrato* (G1) and *niente* (G5) are used, while in Phrase 3, *muraiki* (G2) is added to *vibrato* and *niente*. This spare use of gestures correlates with the limited melodic development of chant and moderate dynamics of these opening phrases, particularly when their application within the phrases is considered. In all three phrases, *vibrato* (G1) is restricted to the second and third tone centres of the Dorian mode chant, A and G respectively, and *niente* (G2) becomes the phrasal closing gesture, while *muraiki* (G2) is twice added in Phrase 2 to the opening D and emphasizes the final repetition of A.

The biwa follows the shakuhachi lead of a low gestural trajectory, not only in the number of gestures, but in the choice of and articulation of those gestures; Tanaka follows the shakuhachi sequence in Phrase 1 with a string scrape (G8) which transforms into a small *tremolo* (G9), both of which are articulated with low dynamics, and in Phrase 2, contracts this gestural trajectory with the use of a single gesture, the quieter timbre of single plucked tones (G10). Within this gesture however, he increases the momentum with an *accelerando* and *rallentando*, which leads into the third shakuhachi phrase and its *muraiki* opening.

Overall, in these phrases we have seen limited gestural rhythms and melodic development, and the use of gestures has been focused on the tone centres, establishing their position. Toward the end of Seki's *niente* in Phrase 3, Tanaka develops the gestural trajectory as he enters on the biwa with a sequence of more forceful gestures, beginning with a strummed arpeggio (G6), which is repeated with accelerating speed. He transforms this gesture into a high *tremolo* (G9), on B♭3, then to A3, before Tanaka finishes the sequence with a combined gesture of a strummed arpeggio and a strike to the body of the instrument (G6 and G7, respectively).

His sequence therefore opens with a strummed arpeggio and finishes with a strummed arpeggio-strike, giving a gestural expansion of timbre from the opening

to the close. Furthermore, the gestures in this sequence increase in volume from loud to very loud, and culminate with an increase in timbral inharmonicity, of *sawari* added to a strike.[179] These gestures expand timbral tension of the phrase and thus increase the overall trajectory of the improvisation toward the end of the first minute.

5.4.4 Phrase 4 (0:52–1:15)

Following on from this increase in gestural trajectory with the forceful timbral gestures and dynamics from Tanaka on the biwa, Seki develops a corresponding increase in the number of, and use of, gestures on a melodic shape akin to that of the fourth phrase of the chant; this is the last phrase in which the shape of the chant melody is broadly followed. *Vibrato* (G1) is extended throughout all the tone centres of the phrase, on D, A, and G, while *muraiki* is only used on the opening D, together with *vibrato*. Thereafter *vibrato* is used on the A and G tone centres, alongside a dynamic increase, before the final *niente* (G5).

The gestural rhythm is expanded with the use of another common shakuhachi gesture, a *portamento* (G3), via a short passing note on F. Seki then contracts his gestural rhythm with a descent to the closing sequence he used in Phrase 2 of D–E–F–E–D sustained with *niente* (G5), which thereafter becomes his closing motif for every phrase. The absence of *muraiki* and *vibrato* together in this final sequence together with a decrease in dynamics to *niente* serve to contract the gestural rhythm of the phrase and reprise the lower gestural trajectory of the first part of the improvisation.

Over the end of the *niente* (G5), Tanaka enters with the softer, quieter gesture of single plucked notes (G10) on the biwa, thus continuing the slower gestural rhythm of Seki's closing motif with amodal mimesis. Tanaka opens with a single low D2, from which he rises two octaves to play a short, quiet, plucked melodic sequence of E4–F4–F4–A4–E4–D4–B♭3–B♭3, before descending back down to D2,

[179] See Chapter 4, §4.3.1.

then A2. Throughout Tanaka's sequence, his timbral rhythm remains slow and quiet, emphasized by the low register of the first and last tones of the sequence.

As before, in Phrase 2, this gesture of single plucked tones is the only gesture used during this sequence, and the low register on D at the start and D–A at the close, provide a connection to the low register of the A in the shakuhachi entry at the start of Phrase 5, while the high register of the melodic motif maintains the gestural rhythm and creates melodic tension. Thus, the increase in timbral trajectory by the biwa at the end of Phrase 3 and by the shakuhachi and biwa throughout Phrase 4, signals the development of the gestural trajectory with the introduction of the increased timbral and microtonal gestural activity.

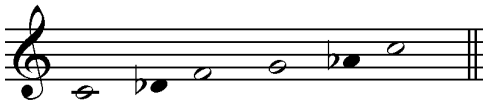
5.4.5 Phrase 5 (1.16–1.36)

Seki sustains and expands the increase in gestural rhythm throughout his shakuhachi sequence and also introduces a Japanese melodic element alongside the shakuhachi gestures. He opens on the shakuhachi with a low A3, expressed with *muraiki* (G2), then moves through a rising melodic sequence to a sustained G. Whilst the *muraiki* is strong, it is not articulated with a sudden, sharp attack, and is sustained and re-articulated throughout this phrase with a greater or lesser strength.

The use of the intervallic sequence D–E♭–G, with its minor second, in this ascending sequence of A–C–D–E♭–G is more suggestive of the *miyako-bushi* scale rather than the Dorian mode of the chant. During the twentieth century, models were sought for the melodic structures used in many Japanese musical traditions (Koizumi 1977:73–79, Tokita 1996:1–8). The most widely used model is Koizumi's (1958) tetrachordal model, in which he identified four main types of Japanese scale (1977:77), including the *miyako-bushi* scale, all of which are constructed of two tetrachords with a single movable infix. This *miyako-bushi* scale is widely used in shakuhachi solo and *sankyoku*[180] traditions:

[180] See Chapter 2, §2.1.

Example 5.3 The *miyako-bushi* scale

 (Koizumi 1977:77)

This *miyako-bushi* interval pattern is perhaps the most distant from the interval pattern of the chant melody and is thus the most readily identifiable cross-cultural melodic sequence, adding emphasis to the cultural distance of performance gestures such as *muraiki* and microtonal movement from the chant performance conventions of sixteenth century Spain.

At the top of the sequence, whilst the G is sustained without additional gestures, Seki's articulation of the G is more breathy; this articulation could perhaps be considered *sorane*, the light *muraiki*. With a fresh breath, a new *muraiki* gesture and the addition of *vibrato* (G1), Seki repeats the G as a *portamento* (G3) passing note up to the climax of the sequence on A; over these two notes he has applied three of the five shakuhachi gestures listed (G1, G2, and G3), adding considerable gestural emphasis to the second tone centre of A as the peak of the sequence.

Seki repeats the A with its opening *portamento*, *vibrato* and *muraiki*, reasserting the A as a tone centre. From the A, Seki descends to his closing motif of D–E–F–E– sustained D with *niente* (G5), with a brief pause on the final E. Throughout the shakuhachi phrase, the application of three gestures and their repetition, particularly on tone centres, increases the gestural trajectory of the improvisation. Although Seki decreases the gestural rhythm of his phrase toward his final tone of D, the impetus of his earlier increases in gestural rhythm are mimicked by Tanaka on the biwa, beginning with his earlier entry, and using a wider selection of gestures throughout.

Previously, the biwa has entered toward the end of the final tone of the shakuhachi sequence; in this phrase Tanaka enters earlier, at the end of the shakuhachi passing note sequence, just before the final shakuhachi tone. He enters with a

gesture of individual plucked tones (G10) on B♭. He accelerates the tempo of the repetitions until he segues into a *tremolo* gesture (G9), still based around B♭, before varying the *tremolo* with a move down to the tonal centre of A. He finishes the *tremolo* with a string scrape (G8), followed by a combined gesture of strummed arpeggio and strike (G6 and G7).

Like Seki on the shakuhachi, Tanaka has employed most of the range of gestures in this phrase that he uses in this improvisation, and furthermore, has done so on only two pitches. The manner in which he applies the gestures to the two pitches, with an increase of speed in the plucked tones, to the more forceful *tremolo*, string scrape, strummed arpeggio and strike, not only increases the gestural rhythm of his sequence in this phrase, but also adds impetus to the increasing intensity of the overall gestural trajectory during the second minute. Furthermore, his limited use of pitch begets a focus on the timbral gestures and dynamic transformations, rather than on melody.

5.4.6 Phrase 6 (1:36–1:51)

The shakuhachi continues this increase in gestural trajectory through an expanding gestural rhythm with the opening gesture of *muraiki* (G2) on D and the addition of *vibrato* (G1) to a passing sequence up to G. These gestures of *vibrato* and *muraiki* are sustained throughout Seki's sequence of distinct tones (A–E–G) before he decreases his gestural rhythm through his closing sequence of D–E–F–E–D sustained with *niente* (G5). In this shakuhachi sequence, Seki increases the gestural trajectory with a corresponding melodic development. The sustained use and dissemination of the gestures throughout the sequence is similar to that of Phrase 5; here, however, the gestural rhythm is emphasized by the distinct, non-adjacent pitches articulated during the climax of the phrase.

On the biwa, Tanaka expands Seki's gestural trajectory with an abrupt entry of a combined gesture comprising a body strike (G7), immediately succeeded by a strummed arpeggio (G6); thus far the articulation of this combined gesture has been in the order G6–G7, strum first, then strike, so this reversal whereby the more forceful gesture comes first increases the potency of the effect. Tanaka

reiterates the strummed arpeggio, minus the strike, then moves into a high *tremolo* on E4. He concludes his sequence with a repetition of the opening combined gesture strike–strum, but this time adds a further strike after the strum (G6–G7–G6), giving a forceful ending to the phrase. By so doing, he frames his sequence with forceful, inharmonic timbral gestures; he opened with a strike–strum and ends with a strike–strum–strike.

5.4.7 Phrase 7 (1:52–2:15)

Seki maintains the intensity of the gestural trajectory, opening with *muraiki* (G2) entry on a low A3, moving up through a passing sequence to an E, which is briefly sustained with *vibrato* (G1) and closes with an upward *portamento* (G3) to an F grace note. Again this ending of a phrase with a short *portamento* is a *honkyoku* technique known as *suri*,[181] which is also used by Regan in *Forest Whispers...* (2008), the second work discussed in this chapter. Seki repeats the ascending melodic pattern, this time from D to G, again with *muraiki* and *vibrato*, before descending to his closing sequence of D–E–F–E–D sustained with *niente*. Seki's reiteration of *muraiki* and *vibrato* maintains the higher gestural trajectory of the improvisation, however he then decreases his phrasal gestural rhythm as he signals his close, heralding a decrease in the overall gestural trajectory.

This decrease in gestural rhythm and trajectory is sustained by Tanaka on the biwa, who enters with a contracted gestural rhythm using the quieter gesture of individual plucked tones (G10). Tanaka alternates between an A2 and pairs of pitches two and a half octaves higher: D4–D4, then D4–E4, before closing with a final A2 then A3–B♭. The B♭ is repeated a few times with a slight variation in tempo, before Tanaka descends to his closing pitch of D2, providing a melodic connection to Seki's entrance on D.

[181] See Chapter 4, §4.4.2.

5.4.8 Phrase 8 (2:16–2:37)

From the lower gestural rhythm of Phrase 7, Seki reasserts the higher gestural trajectory of phrases 5 and 6 in this phrase with the use of all five shakuhachi gestures in this sequence. As he only uses two pitches in this phrase, D–E–D, this limits his melodic development, while emphasizing the focus on his increase in gestural trajectory. Seki opens with a *portamento* (G3) gesture up to a D sustained with *crescendo* before moving to an E with *muraiki* (G2) and *vibrato* (G1). He repeats the D as a passing note with a *portamento* up to a reiteration of E, which is again articulated with gestures of *muraiki* and *vibrato*.

Seki sustains the E with a *portamento* down and up in the middle of the tone articulated with a light *muraiki*. This type of *portamento* during a sustained tone is extremely common in traditional shakuhachi music, with or without *muraiki* or *vibrato* and is known as *nayashi*. Seki repeats the *nayashi* and, unusually, closes the phrase on E, rather than D, with a shorter sustained *niente* (G5) tone than usual. The shakuhachi sequence in this phrase has revolved around a sustained E, with timbral and dynamic change across the entire sequence, thus expressing gesture 4 in which timbral and dynamic change occur over a sustained tone (G4); this gesture is common in shakuhachi *honkyoku* as "the art of making one note interesting",[182] although it is less common for it to be expressed with so much *muraiki* throughout.[183] Whilst he increases the gestural trajectory, the reduction of the melody to two pitches acts to reduce the overall development of the improvisation.

Tanaka employs amodal mimesis to continue the gestural rhythm and trajectory of the shakuhachi sequence on the biwa with a large gestural rhythm on the biwa

[182] Clive Bell, personal communication, 2013.

[183] Akikazu Nakamura is a contemporary shakuhachi player on the international scene, who employs a considerable amount of *muraiki* in his performance, giving his style a very distinctive sound – and prompting mixed responses from other shakuhachi players. He studied under Katsuya Yokoyama (*November Steps*, 1967), then studied jazz and composition in the U.S., and now works as a performer and composer on a wide variety of projects including cross-cultural collaborations. http://www.komuso.com/people/people.pl?person=327 (2 May 2015).

combination of quiet and forceful gestures in his sequence. He enters with a low gestural rhythm of single plucked pitches (G10) on B; the choice of B leads on from Seki's E. The first pitch is a single plucked pitch (G10), after which Tanaka rapidly increases the gestural rhythm with the addition of a preceding strike (G7) to the pitches from then on. The strike–pluck accelerates, then transforms into a small, then large, loud *tremolo* (G9) on which he ends.

5.4.9 Phrase 9 (2:38–2:57)

Seki follows Tanaka's transformation to a higher gestural rhythm with a higher rhythm at the start of this phrase. Seki accompanies his higher gestural rhythm, of multiple, forceful gestures on the opening pitches, with a higher pitched opening of G–A. He opens with a forceful *muraiki* (G2) on a *portamento* (G3) from G to an A sustained with *vibrato* (G1). He then reiterates this sequence, without *muraiki*, before moving into his closing sequence, ending with *niente* (G5). With the forceful gestural sequence of the opening, he reasserts the timbral tension in the gestural trajectory of phrases 5–6 and 8.

From there, however Seki moves into his closing sequence, ending with a sustained, and this time, repeated D. He reiterates the D via a *nayashi portamento* and adds a subsequent *crescendo–diminuendo* to the D prior to *niente*, under which the biwa enters with a short, minimal sequence of a scrape (G8), followed by two pairs of quiet, low pitched, plucked tones (G10) on D2–E2. Seki's gestural and dynamic development on, and repetition of, the final D emphasizes the return to the tone centre and contracts the gestural rhythm and overall trajectory, and this contraction of gestural activity is emulated by Tanaka's mimetic short, minimal biwa gestures.

Tanaka opens with a string scrape (G8), followed by two pairs of single plucked pitches (G10) of approximately D–E, D–E. Determining the absolute pitch used in the movement away from D is not musically significant ipso facto in this context, rather it is the *movement away* from the tone centre of D, to a pitch that is nearby but is harmonically distant which is significant, as it creates melodic tension from the lack of resolution.

5.4.10 Phrase 10 (2:58–3:17)

Seki uses only *vibrato* (G1) and *niente* (G5) during this sequence, indicating a reprise of the low gestural rhythm and trajectory of his opening sequence in Phrase 1, with dynamic patterns that mimic human breath patterns. He opens with a D on the shakuhachi and moves through a short ascent and descent passing note sequence back to D. The reiteration of D is emphasized with a little *vibrato* on the preceding E, from whence the D is articulated with a *crescendo–diminuendo* pattern to *niente* (G5). Seki reiterates the final D, using a *portamento* from C and sustains the closing D of the improvisation with another *crescendo–diminuendo*, down to *niente*, a single sound fading to silence.

5.4.11 Discussion of the gestural trajectory

As outlined in the introduction to the gestural analysis of the improvisation and summarised in the key to the gestural overview, the shakuhachi gestures in this work comprise *vibrato* (G1), *muraiki* (G2), *portamento* (G3), timbral and dynamic change during a sustained tone (G4), and *niente* (G5), while the biwa gestures comprise a strummed arpeggio (G6), a strike to the instrument's body (G7), string scrape (G8), *tremolo* (G9), single plucked tones (G10), and *portamento* (G11). With the exception of *portamento*, which is defined by microtonal movement, the other gestures for both shakuhachi and biwa have timbral movement and transformation as a significant component in their definition as a "bound expressive unit" (Ben-Tal 2012:251) and are used to foreground (Hatten 2006:8) timbral and melodic salience throughout the improvisation.

The patterns of their use throughout the improvisation provide the gestural rhythm within individual phrases and the pattern of the overall gestural trajectory of the unmetered improvisation, as described above. These gestural rhythms and the gestural trajectory conflate and contrast with the melodic trajectory of the work at different points and also contribute to the structure of the work; together with a short melodic motif, the fifth gesture of the shakuhachi, *niente*, becomes a regular ending for each shakuhachi sequence within a phrase, and a corresponding signal for the biwa performer to enter.

The gestural trajectory for the first three phrases is relatively low, with the use of shakuhachi gestures restricted to tone centres, while the biwa gestures of Phrases 1 and 2 are relatively quiet and small, echoing the shakuhachi with amodal mimesis. At the end of Phrase 3, the biwa raises the gestural trajectory with more forceful, louder timbral gestures and the gestural trajectory remains raised overall throughout Phrases 4 to 8, and the beginning of Phrase 9. Throughout Phrase 9 and 10 the gestural trajectory contracts with quieter, smaller gestures from both instruments, leading into the shakuhachi closing *niente*/*ma*. This overall gestural trajectory contrasts with Seki's melodic development of the material on the shakuhachi. For the first four phrases, he broadly follows the melodic shape of the chant, however from Phrase 5 onwards, while he retains the tone centres of the chant, he diverges from the chant melody, particularly in his use of a *miyako–bushi* melodic gesture in Phrase 5.

Thereafter, he concentrates on making selected notes "interesting", through melodic embellishment and increased gestural articulation of *muraiki* and *vibrato*, or rather, he concentrates on the gestural rhythm and trajectory with "interesting" gestural variations (*vibrato*, *muraiki*, and *portamento* – G1, G2, and G3) on a limited range of pitches, which peaks in Phrase 8. In this phrase, Seki combines *muraiki*, *vibrato*, and *portamento* on a single tone, so as to provide gestural variation on the framework of a single tone, rather than pitch change around a tone, giving a gestural trajectory peak against the least melodic development in the improvisation. This juxtaposition creates the effect of a phrase whose affect is of gestural tension contrasting with a lower musical momentum.

On the biwa meanwhile, although Tanaka references the D and A tone centres of the chant, and sometimes provides melodic connections with single plucked tones (G10) to the next shakuhachi phrase, he does not follow the melodic shape of the chant. His role in this improvisation is akin to the traditional role of the biwa as an accompanying instrument to a sung narrative. Here the shakuhachi is doing the 'singing', while Seki's responses are based around timbral gestures; however, it would be a mistake to view his role in this improvisation purely as an accompaniment, as this is more of an exchange between two instruments, one of

which can emphasize melody and timbre, while the strength of the other is in its timbral gestures.

Tanaka's choice of gestures in phrases contributes much to the gestural trajectory of the work. In Phrase 3 his choice of gestural rhythm at the end of Phrase 3, raises the trajectory with his use of accelerating strums (G6) and a high *tremolo* (G8), culminating with a strum–strike (G6 and G7). Likewise, following Seki's gestural peak in Phrase 8 and his unresolved melodic ending on E, Tanaka gives us a sequence with a large gestural rhythm and increased musical momentum which is subsequently picked up by the shakuhachi, then reduced in the closing sequence.

5.5 Conclusion

As explained in the introduction to this improvisation, the work is part of a larger cross-cultural project celebrating the quincentenary of the Spanish Jesuit priest Francis Xavier, and his life and work in Japan, through a series of variations based on a plainchant *O Gloriosa Domina*. The chant is explored by Spanish and Japanese musicians, and while the Spanish musicians develop the chant according to music practices and instruments of Xavier's time, the Japanese musicians explore the plainchant through the auspices of Japanese music traditions, particularly those of the shakuhachi and the biwa.

Although the western musicians are using period instruments, the instruments used by the Japanese musicians are not period instruments per se; as explained in Chapter 2 the Fuke shakuhachi may have been a sixteenth century contemporary, but was not the dominant instrument. Rather, the *hitoyogiri* was a common type of shakuhachi in use at the time.[184] The biwa meanwhile, is a *satsuma*-biwa, which emerged during the sixteenth century in Kyūshū, so may have overlapped with the arrival of the Jesuits in Kyūshū in 1549.

[184] See Chapter 2, §2.1.

The shakuhachi and biwa privilege a timbral aesthetic very different to those of the western instruments, in which timbral gestures can be the primary form of musical movement, including raspy, rough timbres, microtonality, and movement on a single tone. Furthermore, these timbral gestures are performed on instruments with separate musical traditions, although the respective roles of the two instruments are conventional: the biwa reprises its role as a gestural accompaniment to melody/recitation, while the shakuhachi carries the melody. Nonetheless, the two performers create a successful cross-cultural exploration of a western chant in which the melodic material is developed through the timbral and microtonal gestures of both instruments and the melodic trajectory of the shakuhachi.

As this was an improvisation, developing the transcription and demarcation of gestures took a different form than would be the case with a score, since the transcription was based on my listening of the recording and my knowledge of the instruments in the manner of Ellingson's (1994:141–142) model of conceptual transcription. Thus I developed gestural definitions based on what I heard, using the transcription with Ben-Tal's (2012:251) definition of gesture as a "bound expressive unit" and Hatten's (2006:8) foregrounded significance in mind. I added gestures as necessary, rather than extracting from the transcription prior to beginning the analysis and correlating the extracted gestures with the recording. This analytical priority contrasted with the approach to Denyer's and Regan's longer compositions, recounted in the next two chapters, where I collated gestures from the score prior to beginning work with the recording.

Tsang's (2002:35–36) gestural rhythms, and McAdams et al. (2004:157) gestural trajectory, with reference to Cox's amodal gestural mimesis (2006:50–55) and Nettl's (2005:110) descriptors of style has enabled discussion of the gestural rhythms and trajectory of the two instruments in the improvisation. The exchanges between the shakuhachi and the biwa sequences have been expressed in timbral and microtonal gestures, some of which have conveyed more melodic emphasis than others.

By these gestures, the musicians generate and transform musical momentum, with gestural tension and relaxation, within the phrases, throughout the work to give us the trajectory. This gestural trajectory can be traced from the opening to the close, while the melodic trajectory can be seen in two sections of the first four phrases keeping to the basic melodic shape of the chant, followed by the remaining six phrases in which the shakuhachi introduces melodic shapes informed by both its own Japanese heritage, and that of the western chant.

In addition, the exploration of timbral gestures in this improvisation stands in contrast to its programme neighbours of two choral renditions of the chant melody, as neither of the adjacent works has a timbral emphasis, although the sound of the shakuhachi could perhaps be considered to lead on from the voices. Nevertheless, the direction of the improvisation takes the listener into a musical space distant to that of the singers, with its privileged timbral and microtonal gestures, and different melodic shapes. At the same time, the performers retain tone–centre and gestural links such as *niente*, and in the shakuhachi, a sense of the spiritual purpose of the original Dorian plainchant. An intriguing cross-cultural engagement with a western format, very different to the works explored in the next two chapters, but nonetheless exploring similar timbral themes.

6 Analysing gestures in Frank Denyer's *The Tender Sadness of Tyrants as they Dance* (1991) for bass flute and shakuhachi

6.1 The context of the composition

Frank Denyer (b.1943) is a contemporary English composer who explores sounds, musics and instruments from many parts of the world, including Japan. He has written a number of works for the shakuhachi, both solo and ensemble, and has frequently collaborated with the shakuhachi player, Yoshikazu Iwamoto (b.1945),[185] who has been based in Britain for many years.

During Denyer's early student composition days, in the 1960s, he became uncomfortable with,

> …the narrow range of instrumental types within which I was expected to operate, and then the further limits on combinations of such instruments to make ensembles were even more severe…. The educational lesson was of the imperative to conform. (1994:46)

From this he began to consider questions of authenticity and ownership, musico–cultural hegemony, and the assumed universalism of western classical music, while also exploring alternative tunings, instruments, and musical priorities to those of existing western conventions. These studies led to fieldwork in North India and Africa, and to a Ph.D. in Ethnomusicology from Wesleyan university during the seventies (Denyer 1994:47, Day 2009:142).[186]

It was at Wesleyan University in the U.S. that he met the shakuhachi player Yoshikazu Iwamoto,[187] then an artist in residence in the music department, thus beginning an association which was to prove extraordinarily fruitful. Iwamoto,

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[185] Sadly, Iwamoto retired from shakuhachi teaching and performance some years ago and no longer engages in communication with people about the shakuhachi.

[186] http://www.frankdenyer.eu/?page_id=108 (25 Jul. 2015): Gilmore, Bob: *Butterfly Effect: the music of Frank Denyer (*download .pdf*)* The Musical Times, spring 2003.

[187] See Chapter 1, §1.3.2.

who was taught by Katsuya Yokoyama (1934–2010) of Takemitsu's *November Steps* (1967) fame, came early to prominence as a shakuhachi player and went on to have an international career spanning decades.[188] While at Wesleyan, Iwamoto commissioned Denyer to write works for the shakuhachi, encouraging Denyer to explore new possibilities for the instrument, even if this presented technical challenges for the player (Denyer 1994:47). Through his subsequent exploration of the wide timbral tessitura of the shakuhachi and its nuances of expression, Denyer was to discover a means by which he could articulate the timbral complexities with which he was concerned:

> I was particularly drawn by the wide variations in timbre (open and veiled) between different notes in the same register, the *ha – ra– ro* type of ornamentation, the breath timbres – *muraiki, kasaiki* and *sorane* – which have many possibilities for potential development. I must also mention the fluttertonguing and tremelo [sic] techniques, such as *korokoro* and *tamane,* and the types of *vibrato* to which I immediately added a throat *vibrato* of my own. (Denyer 1944:48)

When Denyer started writing for the shakuhachi he began to consider strategies by which the potentialities of the shakuhachi could be exploited within the multicultural "instrumentarium" (Denyer 1994) he favours in his ensembles. Nevertheless, he was very aware of the looming heritage of the instrument:

> There are special hazards facing any contemporary composer taking on the shakuhachi. The historical shadow of traditional *honkyoku* (the original solo style) is the most obvious danger. Its seductive influence ringing in the memory has the power to subvert almost any compositional idea into a pale silhouette of itself. Determined to avoid this, I found a number of counter–strategies. For example, as traditional *honkyoku* is invariably slow moving, in a kind of free rhythm, as my first shakuhachi piece would have to be kept constantly moving. (Denyer 1994:47–48)[189]

In an effort to avoid undue influence from the heritage of the shakuhachi while writing *On On*, *It Must Be So* (1977–1978), he deliberately went against the traditional, slow, non-metered *honkyoku*, composing a work that involved constant

[188] http://www.komuso.com/people/people.pl?person=707 (26 Jul. 2015).

[189] See Chapter 2, §2.4.

movement in the melodic material, particularly with regard to timbre, *tremolo* and *portamento* effects (Denyer 1994:47–48).

Whilst Denyer chose to write a work that was "constantly moving" (ibid.) as a reaction to the slow movement of *honkyoku*, it is worth highlighting that all *honkyoku* has movement, both subtle and overt, and the tempo is not uniformly slow in performance; works vary in tempo and the same work will vary in tempo between different *ryū* (schools of performance), and between individual performers. Perhaps what Denyer sought to explore were greater movement parameters and *tempi* than would usually be the case in *honkyoku* and a means of rendering implicit movement explicit. In addition, Denyer also chose to distance himself from the heritage of the shakuhachi, by describing his specified performance techniques in English, rather than Japanese (Denyer 1994:48).

Denyer's engagement with the rich sonorities of the shakuhachi led to a varied shakuhachi corpus of compositions dating from Iwamoto's first commission, *On On It Must Be So* (1977–1978), for shakuhachi, bass drum and castanets, to his most recent shakuhachi work, the solo *Woman with Jurashi* [sic] shakuhachi (2008).[190] for the shakuhachi performer Kiku Day (Day 2009).[191] Through these compositions he has explored the rich timbral and microtonal possibilities of the instrument with music that the western musicologist Bob Gilmore has described as:

> "'transcultural,' if by that we understand a wish to create, from diverse elements, imaginative sound worlds marked by the absence of a single dominant cultural tradition." (Gilmore 2003:29)[192]

Gilmore cites a particularly good example of this transcultural composition as *The Tender Sadness of Tyrants as they Dance* (1991), hereafter referred to as *Tyrants*, for shakuhachi and bass flute, in which Denyer does not seek to juxtapose the two musical worlds, but rather:

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[190]Woman for *Jinashi* Shakuhachi (Day 2009).

[191] http://www.kikuday.com/shakuhachi/ (20 Jun. 2015).

[192] http://www.frankdenyer.eu/wp-content/uploads/2015/01/ButterflyEffect.pdf (25 Jul. 2015).

> "creates a new hybrid sonority by having the two instruments play together the whole time." (Gilmore 2003:27–31)[193]

6.2 *The Tender Sadness of Tyrants as they Dance* (1991)

While Denyer's music may generate new "hybrid sonorities" (2003:4) these are sonorities that bear the imprint of the home culture of the instrument (Gilmore 2003:27–31, Denyer 1994:47–48) in their timbral emphasis. In *Tyrants*, Denyer explores extreme timbral expressions and textures of human breath, either with or without the flute, together with percussion produced by the feet.[194] The work was written using staff notation with additional notational instructions for these and other musical expressions which lie outside the conventional domains of western art music and traditional shakuhachi repertoire.

His focus on timbre and moment–by–moment change reflects a concern with texture and textural change akin to that of Japanese aesthetics,[195] and his emphasis on breath conflates with the importance of breath in shakuhachi performance. Furthermore, Denyer is very aware of the congruence of these two gestures in the sound of the shakuhachi. The first indication of this detailed attention to the nuanced timbres of the human breath, both with and without the flute, can be seen in notational instructions 1, 2, 6, and 7 of his performance directions given at the start of *Tyrants*,

1. 'Ghost', which refers to a *muraiki* with a 'shadow' of a pitch.
2. A sung pitch.
3. nv = non *vibrato*.
4. A quarter-tone sharp and flat.
5. Smaller, microtonal intervals that are sharp or flat by about 15–25 cents either way.

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[193] http://www.frankdenyer.eu/wp-content/uploads/2015/01/ButterflyEffect.pdf (25 Jul. 2015).

[194] See the score performance directions, CD 1, track 3. N.B. As Denyer's original score lacks bar numbers, I have taken the liberty of adding them to enable reader navigation.

[195] See Chapter 4, §4.4.

6. Breath sounds, inhaling and exhaling, without the instrument.
7. A voiced sound without the instrument. (Denyer 1991, score performance directions).

Furthermore, these are not the only breath performance directions in the work. Other breath instructions appear in the score: "whistle tone",[196] "throat flutter",[197] and "throat oscillations".[198] These specific breath effects and voices sounds, are accompanied by discrete microtonal intervals as per the instructions, such as that of the quarter-tone specified in instruction 4. Together these breath sounds and microtones account for many of the qualities that make the shakuhachi so distinctive, particularly when compared with western orchestral instruments, although Denyer's musical application of these qualities of sound is radically different from traditional shakuhachi repertoire. *Tyrants* explores the extremes and fine detail of breath sounds and instrumental sounds through dramatic changes and gradual differences of sonority throughout the work, punctuated by percussive timbres, which the flautists produce with their feet, via tap-dancing shoes. The sporadic percussion is notated on a single line below that of the relevant player who performs it.

At this juncture, it would be useful to consider Lewin's (1987) question of transformation in the context of a timbral gesture rather than a pitch framework: what gesture will a player *typically* execute in order to move onwards with a transformation of the sound. Here, the key issue is contextual typicality. A typical shakuhachi gesture would be a technique *commonly* used within traditional repertoire. Denyer uses extended techniques that are untypical and indeed are not even present in traditional repertoire. However, within the context of the work, the gestures may be typical in that they are commonly applied or untypical if they are not commonly applied. An example of this would be Denyer's throat oscillations mentioned above, which are only denoted once during the work, in bar 23; these

[196] See the score p. 3 bars 80-89.

[197] See the score p .2 bar 46, and p. 6, bar 184.

[198] See the score p. 8, at the start of bar 223.

gestures are untypical within the context of this work, while other gestures are much more common, and thus, typical.

Although Denyer uses metered staff notation to represent his work, his very frequent time signature[199] and tempo changes create and control precise aperiodicity in the music, if that is not an oxymoron, with the emphasis on timbral and microtonal movement rather than metrical movement. Further weight is given to the prominence of timbre and microtonality in this music by the non-tonal nature of the work. This emphasis on timbral movement amidst an ametric structure and non-tonal harmonic structure is not unlike Takemitsu's *November Steps* (1967); however, Denyer's *Tyrants* is marked by abrupt changes in much more extreme pitch ranges than those in *November Steps* (1967).

From this perspective, although similar parameters have been applied, both the expression and form of those parameters in the work are highly distinct. Within the score, dynamics are notated with the usual western conventions and here are used to emphasize starkly contrastive dynamics with, for example, an abrupt movement from *piano pianissimo* (*ppp*) to *forte fortissimo* (*fff*). These dynamic shifts are perhaps one of the most immediate features for the listener, with clearly demarcated blocks of one dynamic extreme, followed by the opposite extreme.

Looking at the score and listening to the music, the ametric, arrhythmic, non-tonal timbral prominence of the work is evident, and in these structural respects it is similar to Regan's work, *Forest Whispers…* (2008) for shakuhachi and cello. Although these structural principles may bear similarities to Regan's work, the musical style in which they are applied is very different. So too is the flexibility accorded to the performer, as Denyer's work is far more tightly controlled in the score than Regan's *Forest Whispers…* (2008) (Chapter 7), where the performer has more flexibility and input into the performance of the piece, such as in the use of the *muraiki* gesture. Although Regan notates *muraiki*, the performer adds

[199] Out of the 275 bars, the time signature changes in 220 bars – and the time signatures are extremely varied, e.g. 2/4, 7/16, 8 ½/4 and 1/4.

unnotated *muraiki* to good effect. By contrast, the use of *muraiki*-like effects is tightly controlled in Denyer's work.

While both Regan and Denyer have extensive experience in Japanese music and culture, and in composing for the shakuhachi, a key difference between them is that Regan has been a shakuhachi performer for many years and lived in Japan for some time, studying with the *hōgaku* performer Minoru Miki (1930–2011).[200] Inevitably, his experiences in Japan have afforded him a different perspective on his use of the instrument to that of Denyer. Regan's music references traditional shakuhachi expressions, as seen in his many works for the instrument, and his music derives from traditional Japanese and western musical spaces; in many ways Regan's music could be characterised as *gendai hōgaku*, new traditional music, evoking a musical space distinct from Denyer.

While Denyer approaches the use of the shakuhachi primarily as a western trained composer, he is adept at recognising the potential of, and accommodating the difference of, non-western musics on their own terms. By his own efforts and approaches, he is less bound by convention and musical expectation of how the shakuhachi can be used. It can be misleading to conflate the best means of accessing the distinctive features of the shakuhachi with traditional conduits of musical expression; as Denyer demonstrates there may be other formats by which the potential of the instrument can be accessed and expressed, a view also espoused by Iwamoto in conversation with Denyer (1994:47).

Tyrants is very much an avant-garde virtuosic piece, both for the western flautist and for the shakuhachi player; the players must be of a high standard to be able to perform it. The shakuhachi player must be conversant with western staff notation and may need to use techniques that are not commonly used on the shakuhachi, so must be open to new approaches. In this sense, the work is not only musically challenging, it is also pushing social parameters with those practitioners and theoreticians who prefer musics to stay within their traditional repertoires and

[200] See Chapter 3, §3.12.

environs. As aforementioned, the shakuhachi player, Yoshikazu Iwamoto, had already challenged Denyer to produce a work pushing such boundaries, while the flautist enlisted was the Dutch performer Jos Zwaanenburg.

Although Zwaanenberg had only graduated in 1985, six years prior to this composition, he was already establishing himself as a composer and flautist who actively engaged with extended and experimental techniques in flute performance and organology,[201] and he has remained active in this contemporary field, experimenting with new techniques, organologies, and combinations with electronics in live performance. The recording used here is of the performance by Yoshikazu Iwamoto on shakuhachi and Jos Zwaanenburg on bass flute, which was recorded as part of the CD *Finding Refuge in the Remains* (1998) and released by Etcetera Records.[202]

6.3 The instruments used in the work

The choice of bass flute, an uncommon western orchestral instrument of comparatively recent provenance (2002:193), provides sonority beyond the usual Boehm flute tessitura with a greater pitch range and an increased timbral resonance range. Although the idea for a bass flute had existed for some decades, it was not until the 1930s that the Boehm system was successfully used to construct a viable instrument, and even today, the design angles of the embouchure section may vary. The tessitura of the bass flute spans three octaves and sounds an octave lower than written, with a rich lower register an octave lower than a standard flute (Adler 2002:193). While use of the instrument has been rare, particularly in orchestral music, there is an emerging repertoire of solo and chamber music, and

[201] http://www.ahk.nl/en/research-groups/art-practice/research-group-arti/researchers-2007-2008/jos-zwaanenburg/ , http://www.composers21.com/compdocs/zwaanenj.htm , http://www.contemporary-music-through-non-western-techniques.com/pages/1452-jos-zwaanenburg (7 Jun. 2015).

[202] http://www.frankdenyer.eu/?page_id=67 (30 Apr. 2015).

film and band music (Adler 2002:193); more radical compositions for bass flute include *Maknogan* (1976) by the Italian composer Giacinto Scelsi (1905–1988).[203]

Whilst the use of such a long flute in the western art music tradition may be recent, there are other musical traditions that use very long flutes; one such is North Indian classical music. The twentieth-century introduction of long, low flutes to the classical domain (Ruckert 2004:76-79, Capwell 1986:787) may have been influenced by the use of such flutes in folk traditions of North Eastern India.[204] Equally, the end-blown *nāy* of the Middle East (Nettl 1986:528) has a well established tradition in genres of the region, while the shakuhachi itself may come in very long lengths of three or four *shaku* plus (remembering that a standard instrument is 1.8 shaku or 54.5 cm with a base pitch of D).[205]

Playing techniques associated with the Boehm flute include the standard tonguing techniques and *vibrato*; special effects such as multiphonics, microtonal movement, *glissandi*; 'slap tonguing', which has been adapted from jazz and gives a snappy, over articulated attack;[206] and 'key clicking', producing a percussive effect by hitting the key down without any air, which can also produce a very faint pitch (Adler 2002:174). It is also worth noting that these special techniques are infrequently used, particularly multiphonics. Nonetheless, many of these techniques are employed by Denyer for the bass flute, particularly multiphonics, microtonality and *glissandi*. Having a larger embouchure, the bass flute is more amenable to embouchure microtonal movement, although special fingerings can also achieve microtones and enharmonic pitch shading. *Glissandi* are not generally feasible on a Boehm flute; a pitch slide up to a second is only possible via a change in embouchure, however as a bass flute will have a larger embouchure, a larger *glissando* may be possible depending upon player and instrument.

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[203] http://www.classical.net/music/comp.lst/acc/scelsi.php (2 Jun. 2015).

[204] Fieldwork research by the author in India 2006–2007.

[205] See Chapter 2, §2.1.

[206] Slap tonguing is not dissimilar to slap *pizzicato* on string instruments.

By comparison, some of the Boehm flute special effects are basic shakuhachi techniques, whilst other common Boehm flute techniques are not commonly associated with the shakuhachi, or are not used in traditional repertoire. Tonguing, for example, is a standard Boehm flute technique for articulating note onset at the start of a phrase or for repetitions of pitches, but is not used on the shakuhachi in traditional repertoire. There is no physical difficulty in using tonguing on the shakuhachi, but note articulation evolved in a different direction. Indeed, Lependorf (1989:235) identifies the absence of tonguing as a component in the distinctive shakuhachi sound; he asserts that use of tonguing would render the shakuhachi sound "more flute-like". Repetition of notes on the shakuhachi is achieved via a rapid opening and closing of a finger-hole, known as *atari*, which generates a quick 'blip' (Lependorf 1989:237) of a grace note as a by-product of the process.

Vibrato is also core shakuhachi technique, with many different varieties defined, which often confer subtle timbral distinctions.[207] Such a variety of *vibrato* techniques differs substantially from that of the standard Boehm flute *vibrato* as the shakuhachi player has far more flexibility and control over the instrument. The head angle and mouth angle to the shakuhachi embouchure is manipulated, as we learned in Chapter 4, through a large range of denoted *vibrati*, which will give distinct timbres. Rather than focusing on these techniques, Denyer had already developed his own *vibrati* with throat flutters (Denyer 1991:48), which he contrasts with trills and *tremolos* in *Tyrants* (1991), and with throat oscillations, which are used for a long, distinctive sequence in the work.

Denyer makes extensive use of microtonal intervals, which are also a feature of traditional shakuhachi techniques, either as discrete intervals or as *portamenti.* While such features are frequent in shakuhachi music, they are not necessarily defined by a precise interval size, but are rather associated with a particular melodic sequence or fingering. *Portamenti* for example are often used on the shakuhachi as a way of "making one note interesting".[208] They can be as large or

[207] See Chapter 4, §4.4.2.

[208] Clive Bell, personal communication, 2013.

small, fast or slow as the player wishes or the conventions of the music and performance style allow, covering microtonal movement to a major second, at the start, during, or end of a tone.

Head directed slides are achieved via the common technique of tipping head forward (*meri*), thus decreasing the angle between instrument and player, or less frequently, tipping the head backwards (*kari*) thus increasing the angle between instrument and player.[209] The extent of the *portamenti* will depend on player, musical context, instrument, and fingerings used, and *meri* positions particularly associated with microtonal movements. One example is *furikiri/nayashi*: a quick head dip to bend the pitch down–up, either during a phrase or to end it.[210]

Microtonal movement can also be performed by partially uncovering a hole for a quarter-tone interval or less as desired. The less the finger comes up off the hole, the smaller the interval. In practice this is often combined with head movement, usually *meri*, to perform the microtonal move, as when performing *tsu-no-meri*, which is played in *meri* position while the second hole of the instrument is slightly uncovered. The *tsu-no-meri* pitch often succeeds the adjacent lowest tone of *ro*, and the interval between the two tones should be less-than-a-semitone, analogous to Denyer's fifth specification for *Tyrants*, of microtones of about 15–25 cents. As a result of its fingering and head position, *tsu-no-meri* also has a tone with quiet dynamics and timbre, distinct from its neighbours.

Large *portamenti* or *glissandi* on the shakuhachi are also used by Denyer in his shakuhachi works. The brief explanation of microtonal techniques above, executed with head movement and fingering, can be extended to large *glissandi* on a shakuhachi; a player can perform a *glissando* up or down an entire octave or more, primarily via fingering (dependent upon their breath control). Large slides are primarily executed via fingering and there is a range of techniques for achieving smaller *portamenti*, with head movement the most frequent. Although it takes practice to produce a smooth *glissando* across an octave, as the shakuhachi is a

[209] See Chapter 4, §4.4.2.

[210] See Chapter 4, §4.4.2.

keyless bamboo flute the player can learn to roll their fingers up or down from a key hole smoothly and gradually. While slides covering very large intervals are not used in traditional *honkyoku* they are exploited in contemporary works such as this.

Other techniques employed by Denyer include multiphonics and enharmonic pitches and *muraiki*. Multiphonics and enharmonic pitches can be played on the shakuhachi by using fingerings that give a very similar or identical pitch, but produce a different timbre, a feature exploited in the *koro-koro vibrato*, which is also used by Regan in *Forest Whispers…* (2008).[211] The Boehm flute technique of 'key clicking' (hitting the key hard) is a technique also used in shakuhachi music, although as the instrument is keyless the player hits the finger-hole hard instead, and as with the flute, this will generate a faint pitch, although this is not a technique exploited in *Tyrants* (1991).

Finally, the distinctive and extensively discussed *muraiki* sound, which can be produced at the start, during, or at the end of a tone as the player wishes, although it is more commonly employed at the start of a tone in *honkyoku*. Conventional *muraiki* can be large or small, with inharmonicity to a greater or lesser degree, with *kazaiki* (strong *muraiki*), *muraiki*, and *sorane* (light *muraiki*),[212] gestures to which Denyer (1991:48) was attracted and from which he develops flute and voice techniques in *Tyrants* (1991).

As we can see from this overview of flute and shakuhachi techniques and effects, some are common to the shakuhachi and the flute, while others are uncommon or unused on one instrument but common on the other:

Techniques common to both instruments:

1. *Vibrato*
2. Key clicking/ finger hitting

[211] See Chapter 7, §7.4.1 and Table 7.2.

[212] See Chapter 4, §4.4.2.

Techniques common to the shakuhachi but uncommon, difficult, or unfeasible on the standard Boehm flute:

1. Microtonal movement.
2. *Glissandi*.
3. *Muraiki*.
4. Enharmonic pitches.
5. Wide dynamic Envelopes (*sf*>*p*<*f*, or *sfp*).

Techniques common to the flute but uncommon or not used on the shakuhachi:

1. Tonguing.

Techniques uncommon to both instruments:

1. Multiphonics.

Given the different performance contexts of these two instruments, the technical distinctions listed above are expressed by very different musical means. Typically, the sustained shakuhachi note develops over its duration, often with an increase and decrease in amplitude. This is not a feature of Boehm flute performance, which features sequences of short, discrete pitches, or sustained tones with little variance in the envelope. Denyer's choice of a bass flute mitigates some of the distinctions, as the larger flute will have greater resonance and more timbral and microtonal flexibility, with techniques such as *glissandi* and *muraiki* more feasible. Listening to *Tyrants* (1991), the two instruments are often difficult to tell apart due to their timbral homogeneity. Both instruments are being used in an unfamiliar musical context, and are applied in an unfamiliar manner in which they operate together in blocks of timbral and dynamic unison that move between extremes.

One perspective might be that both instruments have been removed from their usual operating contexts into a third musical context that is at right angles to both, so it is less a case of fusing two traditions, more that the two instruments converge in unfamiliar territory. An obvious distinction between the two is register; although Denyer does not specify the length denoting the base pitch of the

shakuhachi, he notates multiphonic pitches significantly below middle C (the performer would need to be able to vocalise those pitches).

While register is one means of identifying an instrumental part, as the registral development of this work goes well beyond common parameters, register is not always a reliable indicator of voice identification. In some cases the tessitura is taken to the extremes of physical capacity for player and instrument, requiring skill and imaginative flair to perform. In addition to registral boundaries and multiphonics, other challenges for the performer include *vibrato* performed at low pitches or in an unusual manner as with the throat flutter, the extreme, abrupt and large dynamics changes, and chromaticism and microtonality with dissonant interplay.

6.4 Analytical approaches to the work

The work presents an analytical challenge, bringing musical approaches into sharp relief. Any analyst when starting scrutiny of a musical work will look at the musical data available, whether audio or notation, for patterns in the work that indicate its internal logic, coherence, or other attributes from which recipients of the music gain meaningfulness. Music moves through transformations of sound, whether those transformations are melodic, timbral, rhythmic, or another attribute. The logic that governs those transformations may not be immediately apparent, such as when the music is avant-garde or the unfamiliar music of another culture, however there will be an internal logic to Blacking's "*humanly organised sound*" (1995:55). While the focus of this work is the timbre of human breath, the organisation by which these gestures were expressed was less obvious, presenting the challenge of finding a means by which these expressions of timbre could be explored.

Initial surveys of any composition may consider details such as overall duration and structure, considering for example whether there are sections within the piece by which the researcher may orientate themselves within the music, such as those

defined by Regan in *Forest Whispers…* (2008).[213] These sections might be indicated by section headings and bar or measure numbers, and may include a change of pitch organisation, melody, rhythm, speed, instrument, or by an increase/decrease in timbral activity within the work as seen in the *O Gloriosa Domina* improvisation (Chapter 5). An initial perusal of the score of *Tyrants* (1991) did not indicate any immediately obvious section breaks, nor were bars or measures indicated.

Musical keys are redundant in this work and melodic development is not a cornerstone of the structure. Metrical and rhythmical changes are frequent and while the type of musical activity in the work varies, the level of musical activity remains fairly constant throughout, offering no distinctive cues to assist orientation of the analyst or listener. Both the shakuhachi and bass flute play in concert with one another throughout most of the work, augmented with occasional percussion, and the piece is non-tonal with frequent microtonal and enharmonic pitch movement. As the means by which a more conventional work might be explored were redundant in this composition, this forced another structural focus for the organisation of the work and that focus is timbre and dynamics.

As the focus of *Tyrants* is on instrumental timbre and breath, the coherence of the work can be explored in those terms, as a series of timbral and dynamic gestures, combined into gestural phrases with their own rhythm, and these phrases form an overall gestural trajectory. A key difference in the use of gestures in this work is that Ben-Tal's (2012:251) short, unified "bound expressive units" which would more usually be considered as additions to the primary structure, here comprise the integral musical organisation of the work, and as such often constitute longer units than Ben-Tal may have had in mind, but are nonetheless clearly delineated "bound expressive units" (ibid.).

In this sense gestural units in this work fulfil Hatten's (2006:1) broader definition of gestures as as "*any energetic shaping through time that may be interpreted as significant*". There is much shaping of timbre through time that is indeed

[213] See Chapter 7, §7.4.1, and Regan's score performance directions (CD 1, track 7).

significant, as individual gestural units and as phrasal structure through the tension and relaxation rhythms of gestures (Tsang 2002:35–36), and the overall gestural trajectory (McAdams et al. 2004:157). This shaping can be described with reference to Cox's (2006:50–55) amodal mimesis and Nettl's descriptors (2005:110).

Such a gestural analysis would be similar to the categories of gestural signification developed by Uno Everettt (2002:132, 150), or the categorical basis of Fortean analysis (Dunsby and Whittall 1988:131–153), except focusing on timbre rather than pitch. In works that exploit timbre as a core structural feature of the musical energetics, through timbral contrasts and movement between instruments or within the compass of a single instrument, gestural analysis has considerable potential, particularly when aligned with dynamics and to some extent, register.

In addition to an overall gestural trajectory, contrasts in the gestural rhythm of phrases are a prominent feature, through distinct and sometimes extreme timbral and dynamic changes, and Denyer exploits acoustic features through his rhythmical and temporal use of these gestures, such as note onset synchrony, individual note onset and steady state determination, and local segment organisation. The gestures themselves comprise a range of timbres which reflect Denyer's exploration of timbral extremes. Denyer also specifies distinct textures that lie outside the traditional purview of both instruments, alongside more conventional techniques from both such as *portamenti*. He also makes prominent use of defined, discrete microtones as previously discussed.

Although such microtones are used throughout Denyer's composition, they are sublimated within the timbral and dynamic focus of the gesture and so are not referred to as distinct gestures in their own right. Further analysis on this work could be undertaken with a focus on the melodic and harmonic features of the work, microtonal and otherwise, however this would obfuscate the timbral and dynamic gestures with too much information, so for the time being must be put aside. Likewise, metre and speed, of which there are many changes in this work,

have also been ignored in the analysis, not least because they are not musically significant in the demarcation of timbre and dynamics in this work.

6.4.1 Delineating gestures and structures in the work.

As the work is not formally divided into sections and has no obvious section breaks, this rendered many approaches to organising a work obsolete, as discussed above. Therefore, one of the first decisions that I needed to make about the analysis of this composition was how to demarcate the work into groups of bars and individual units. While the composition may not exhibit conventional structural parameters, the work does exhibit gestural rhythms in phrases with chunks of sound that vary in timbre and dynamics. Thus this offered the possibility of approaching the gestural overview and the analysis on the basis of its gestural rhythms as a structural unit. Furthermore, these gestural rhythms comprised either individual gestures per se, or were composites of several gestures.

Individual gestures were mostly straightforward to denote, starting with those timbral gestures included in the performance directions, then scouring the score, and listening. Initially, I paid less attention to dynamics, but quickly realised that they were integral to many of the gestures, as can be seen in the key to gestures with specifications of a 'loud tone on the flute' (G1) and a 'loud tone on the shakuhachi' (G2). Therefore, dynamics constitute part of the overall gesture and have been grouped according to generic types of loud, moderate, and quiet. Finer distinctions such as *piano* and *pianissimo* have been ignored, as they would confuse the overview.

For some of the gestures the delineation includes also includes specific pitch register, such as the high sinusoidal tone (G11) in which pitch has a very significant impact on the timbre, as the sound becomes increasingly sinusoidal with the rise in frequency causing corresponding timbres that are usually distinct to become increasingly homogenous. These high pitches constitute a distinct musical effect so have been classified as distinct gestures. In the interests of expediency and priority of focus, most other pitch and dynamics directions have been omitted in favour of a timbral focus, as both can be correlated with the

gestural map from the score and if included would obfuscate and indeed invalidate the purpose of a gestural *overview* with a focus on timbre. Broad pitch bands are subordinate to timbre in this work; as one pitch can have many different timbres and timbre is the dominant gesture, then pitches can be subordinated to the timbral gestures in the most frequently used pitch ranges.

Throughout much of the composition, the instruments are voiced together and share many of the same gestures within a phrase; there seemed little purpose to separating the voices in the gestural overview of this work. In this respect, the organisation of this composition contrasts with the gestural overviews of *O Gloriosa Domina* (2011) and Regan's *Forest Whispers…*(2008), (Chapters 5 and 7 respectively) where each instrument has its own line in the gestural overview. The only exception is the example referenced above, where the loud tones of the flute and shakuhachi have been separated as they do provide distinct timbres; the loud shakuhachi tone is generally more breathy than that of the bass flute. Even so, the two timbres are not easy to distinguish, while the quiet and moderate tones of both instruments are virtually indistinguishable.

Not only is it difficult to distinguish the two instruments in quiet and moderate dynamics, it is not relevant to do so, given that composite timbral blocks well outside the usual parameters of both instruments provide the focus on the overall timbral unit of a phrase rather than an individual flute voice. Furthermore, whilst there are more finely tuned dynamic instructions on the score, in order to construct an overview I have grouped them into three broad dynamic ranges of loud, moderate, and quiet, the application of which also reflects their musical context.

Denyer's focus in this work is on the human breath and this is reflected in the number and breadth of breath and voice gestures in the work, using techniques such as throat flutter gestures or sound of voice only, as referred to in the list prior to the work. These, and other gestures either constitute gestures per se or are combined with sounds from the instruments and foot percussion to create the

gestural rhythm of the phrases. The list of timbral and dynamic gestures is as follows, and as before gestures are prefixed with a G:

Table 6.1 Gestures in Frank Denyer's *The Tender Sadness of Tyrants as they Dance* (1991).

G1: Loud flute tone.
G2: Loud shakuhachi tone with *muraiki*.
G3: Multiphonics (includes the instruction of a sung pitch, which is combined with a pitch played on the respective instrument).
G4: Foot percussion.
G5: *Glissandi* up and down. The direction of the *glissando* is indicated with an arrow on the score.
G6: Quiet tone on either instrument.
G7: Ghost tone; specific instruction, "without the instrument really sounding, breath is directed across the mouthpiece with the correct fingering for the written pitch. The breath sound is thereby focussed onto that frequency producing a sort of shadow or ghost pitch" (Denyer 1991, performance directions on the first page of the score, CD1, track 6).
G8: Sound of breath – exhale, then inhale – a specific notational instruction.
G9: Inhale – specific notational instruction.
G10: Silence.
G11: Very high register, almost sinusoidal.
G12: Whistle tone; specified in the score.
G13: *Vibrato* – *tremolo*.
G14: *Vibrato* – flutter.
G15: Trill.
G16: Voice sound only.
G17: Breath sound only.
G18: Sound of throat.
G19: *moderato*.

Although the composition is not formally subdivided in any way I have proposed organising the work in structural units based on the gestural rhythms of phrases, and this is the method used in the gestural overview. These gestural rhythms broadly represent changes in gestural rhythm and trajectory and I have based the phrasal groups on listening to the recording and scrutinising the score. As such, these groupings are of my own devising and do not represent the views of the composer. Given this approach, the breakdown of phrases may not suit all listeners or readers, however, it has enabled analytical access to the use of timbral and dynamics gestures in this work, and the corresponding gestural rhythms and overall trajectory.

Delineating the gestural rhythms was not always straightforward. Did I, for example, include silence (G10) at the end of one gesture or the start of the next, or as a gesture per se? In practice, this depended upon the immediate context and duration of the silence, given that the musical role of silences in phrases varies accordingly. For instance, the opening gestural rhythm grouping lists bars 1–10. Originally this was bars 1–9; however, I then decided that the silence in bar 10 closed the gestural rhythm of the phrase, and have continued this approach throughout – which also makes for a more concise overview.

Such decisions were further informed by contextual expediency in constructing an overview. There were places in which a group of bars exhibit a diverse range of gestures, where I considered one gesture to be a standalone gestural rhythm. As the utterance of the single gesture within a diverse phrasal group was brief, I elected to group the diverse gestures together as a phrase for the purposes of an overview. After all, this is why one has an overview with particular features highlighted; those features are then expanded upon in the text as necessary. Nevertheless, these decisions formed an integral part of the gestural analysis since they are not merely additions to a melody, but rather constitute fundamental building blocks of the work. These gestural rhythms represent blocks of sounds which provide an "*… energetic shaping through time that may be interpreted as significant*" (Hatten 2006:1), and shape the gestural trajectory of the work.

6.4.2 The gestural overview.

Each gestural rhythm is represented in the gestural overview with recording timings, which are based on playback in iTunes version 12.0.1.26, and these gestural rhythms are then considered in turn in the analysis. Breaks are based on phrasal transformations of gestural rhythm such as breaks in the notation and/or timbrally salient events such as silence or breath tones in contrast to loud multiphonics; as with Takemitsu's *November Steps* (1967), the removal of standard western classical methods of orientation within a work prompted a focus on features like timbre and dynamics as directing the structure and development of the work. This structural approach is further discussed in the analysis, which follows the gestural overview represented on the next two pages. As before, each gestural overview is presented with a key to gestures at the bottom of the page, and while the gestures are listed in each segment, they are not listed in their order or frequency of use in the music.

While the complete gestural overview is presented on the following two pages, in the interests of facilitating referencing between the analysis and the overview, I have also included each individual gestural row at the relevant juncture in the discussion. The score and gestural overview are on CD 1, tracks 7 and 8.

Table 6.2a Gestural overview of Frank Denyer's *The Tender Sadness of Tyrants as they Dance* (1991) for shakuhachi and bass flute

Bars: 1-89 Timing: 0:00-6:15 Score: pp.1-3

Bars:	**1-10**	**11-12**	**13-18**	**19**
Timings:	0:00-0:29	0:30-0:34	0:35-0:49	0:50-1:00
Shakuhachi & Bass flute:	**G1, G2, G3, G4, G5, G10, G15**	**G3, G6, G10**	**G1, G2, G3, G5, G10**	**G7**

Bars:	**20-29**	**30-31**	**32-36**	**37-38**
Timings:	1:01-1:27	1:28-1:44	1:44-1:51	1:52-1:58
Shakuhachi & Bass flute:	**G1, G2, G3, G4, G8, G10**	**G1, G2, G3, G4, G10, G11, G15**	**G1, G2, G3, G5, G9**	**G4, G6, G10**

Bars:	**39-42**	**43**	**44-45**	**46-49**	**50-70**
Timings:	1:58-2:27	2:28-2:33	2:34-2:52	2:53-3:11	3:12-4:35
Shakuhachi & Bass flute:	**G1, G5, G6, G10**	**G1, G11, G6, G10**	**G7**	**G3, G5, G6, G11, G14**	**G1, G2, G3, G4, G5, G10**

Bars:	**71-72**	**73**	**74**	**75-79**	**80-89**
Timings:	4:36-4:54	4:55-5:03	5:04-5:09	5:10-5:30	5:31-6:15
Shakuhachi & Bass flute:	**G10, G17**	**G1, G2, G3,**	**G7**	**G3, G6, G11**	**G12**

Key to gestures:
G1: loud flute tone
G2: loud shakuhachi tone with *muraiki*
G3: multiphonics (including sung pitch)
G4: foot percussion
G5: *glissandi* up or down
G6: quiet tone on either instrument
G7: "ghost" tone – breath with a hint of pitch
G8: sound of breath – exhale, inhale
G9: sound of breath – inhale
G10: silence
G11: very high register, almost sinusoidal
G12: whistle tone
G13: *vibrato – tremolo*
G14: *vibrato* – throat flutter
G15: trill
G16: sound of voice only
G17: sound of breath only
G18: throat oscillations on a slow tempo
G19: *moderato* on either instrument

Table 6.2b Gestural overview of Frank Denyer's *The Tender Sadness of Tyrants as they Dance* (1991) for shakuhachi and bass flute (cont.)

Bars: 90-275 Timing: 6:16-17:55 Score: pp. 4-9

Bars:	**90-91**	**92-111**	**112-132** -	**133-137**
Timings:	6:16-6:20	6:21-6:51	6:52-7:20	7:21-7:34
Shakuhachi & Bass flute:	**G1, G2, G9, G17**	**G3, G16, G19, G10**	**G3, G4, G5, G6, G10**	**G5, G10**

Bars:	**137-148**	**149-151**	**151-156**	**157-161**	**162-178**
Timings:	7:35-7:49	7:50-7:57	7:58-8:17	8:18-8:30	8:31-9:34
Shakuhachi & Bass flute:	**G3, G10, G19**	**G1, G2, G3, G10**	**G3, G6, G10, G19**	**G1, G2, G3, G4, G10**	**G1, G2, G3, G4, G10**

Bars:	**179**	**180-204**	**205-209**	**210-213**
Timings:	9:35-9:39	9:40-10:46	10:47-11:02	11:03-11:19
Shakuhachi & Bass flute:	**G7**	**G1, G2, G3, G4, G5, G10, G11, G13, G14, G15**	**G4, G5, G6, G10**	**G1, G2, G3, G10**

Bars:	**214-222**	**223-224**	**225-242**	**242-247**	**248-275**
Timings:	11:20-11:59	12:00-14:21	14:22-15:32	15:32-16:00	16:01-17:55
Shakuhachi & Bass flute:	**G7, G11**	**G6, G17, G18, G10**	**G1, G2, G3, G9, G10**	**G4, G10**	**G6**

Key to gestures:
G1: loud flute tone
G2: loud shakuhachi tone with *muraiki*
G3: multiphonics (including sung pitch)
G4: foot percussion
G5: *glissandi* up or down
G6: quiet tone on either instrument
G7: "ghost" tone – breath with a hint of pitch
G8: sound of breath – exhale, inhale
G9: sound of breath – inhale
G10: silence
G11: very high register, almost sinusoidal
G12: whistle tone
G13: *vibrato – tremolo*
G14: *vibrato* – throat flutter
G15: trill
G16: sound of voice only
G17: sound of breath only
G18: throat oscillations on a slow tempo
G19: *moderato* on either instrument

6.5 Analysis of gestures, gestural rhythms, and trajectory

The gestural trajectory for this work is an inversion of high to low gestural rhythms. The work opens with a high number of loud, rough timbres at the opening of the work that gradually transform to an emphasis on quieter and longer gestural rhythms as the work progresses. In addition, the opening has the most frequent changes of gestural rhythm and the most variety of those gestural rhythms, which again gradually resolve into longer and more clearly delineated timbral and dynamic phrases. This progression is most immediately illustrated by the dissemination of the gestures in the overview; the first 6'15" minutes and 89 bars occupy the first page of the gestural overview, while the remaining 11'40" and 214 bars occupy the second and final page of the gestural overview.

6.5.1 Bars 1–89 (0:00-6:15), score pp.1–3: overview

For the first 6:15 minutes (bars 1–89) the timbral activity revolves around gestures 1, 2, 3, 4, and 5. Gestures 1 and 2 are the loud and typical tones for flute and shakuhachi respectively, whilst G3 is multiphonics, G4 is foot percussion, and G5 is *glissandi* in either direction, and these latter three gestures are used by both instruments. The timbral effect of these gestures is harsh, loud, and heavy, creating a high intensity gestural rhythm which is further expanded with the use of gestures 8 (breath – exhale, inhale), 9 (breath – inhale), 11 (high, sinusoidal tone), and 15 (trill). This gestural rhythm contracts with quiet, low contrasts revolving around gestures 6 (quiet on both instruments), 7 (Ghost tone), and silence (G10). As the work progresses the heavy intensity of these gestures is gradually reduced and the gestural rhythm lessens, with increasing variations of gestural rhythm and the inclusion of new gestures.

Table 6.2.1 Bars 1–19 (0:00–1:00), score p.1

Bars:	**1-10**	**11-12**	**13-18**	**19**
Timings:	0:00-0:29	0:30-0:34	0:35-0:49	0:50-1:00
Shakuhachi & Bass flute:	**G1, G2, G3, G4, G5, G10, G15**	**G3, G6, G10**	**G1, G2, G3, G5, G10**	**G7**

6.5.2 Bars 1–10 (0:00–0:29), p.1

The gestural rhythm of the opening phrase of bars 1–10 is carried by loud tones (G1 and G2) marked *fff*, which are emphasized with the addition of multiphonics (G3), and further punctuated with upward *glissandi* (G5), a trill (G15) in the flute voice, and foot percussion (G4) by the flautist, although it is neither possible, nor relevant, to discern who is performing the foot percussion on the recording; this aspect of performance would have significantly more resonance live. The gestural rhythm of the phrase increases throughout with the addition of multiphonics in bar 4, which continue to the end of the phrase, then by the use of a trill in bar 6, and *glissandi* in bars 6 and 8, and foot percussion in bars 7 and 8. Whilst the *glissandi* and trill seamlessly blend into the overall timbre, the sole iteration of foot percussion has a distinctive salience in the gestural rhythm of the phrase, not least because its acoustic parameters differ from those of the flutes. This energetic, loud opening phrase ends with brief silence (G10) from which the contrasting gestural rhythm of bars 11 and 12 emerges.

6.5.3 Bars 11–19 (0:29–1:00), p.1

This short quiet second phrase opens with a high, *non-vibrato ppp* tone on the shakuhachi succeeded by a rest, followed with a *pp* expression in bar 12 from both instruments, with quiet multiphonics in the flute, from which we immediately plunge back into the *fff* G1 and G2 dynamic of the opening phrase, this time iterated across bars 13–18 with multiphonics (G3) and *glissandi* (G5) throughout. So although most of the same gestures have been used in this phrase as in the opening, with the exception of foot percussion (G4), this time they are used throughout the phrase rather than being added as the phrase progresses. Thus, the increased gestural rhythm on which the opening phrase culminated in bar 9 is sustained throughout the entire phrase of bars 1–8.

In these three phrases, from bars 1–18, we have seen '*energetic shaping through time*' (Hatten 2006:1) of dynamic extremes from *fff* to *ppp* and back to *fff* on gestures 1, 2, 3, 4, and 5. These dynamics have been part of composite timbral gestures expressed with the loud tones of gestures 1 and 2, to which *glissandi* (G5) and multiphonics (G3) have been added, giving a complex, abrasive timbre to the

gestural rhythm of bars 1–10 and 13–18, which contrasts with the single quiet tones and multiphonic gesture of bars 11 and 12. The gestural rhythm of this third phrase ends with a longer silence in bar 18, preceding a gestural inversion in bar 19. The gestural rhythm of bar 19 contrasts sharply with many of the preceding and succeeding bars; the contrast is larger than that between bars 1–10 and 11–12 and between 11–12 and 13–18. This larger timbral and dynamic contrast is achieved with the entrance of the first 'Ghost tone' gesture (G7), specified by Denyer in the performance directions, in which the quiet note is barely sounded by the direction of breath across the embouchure.

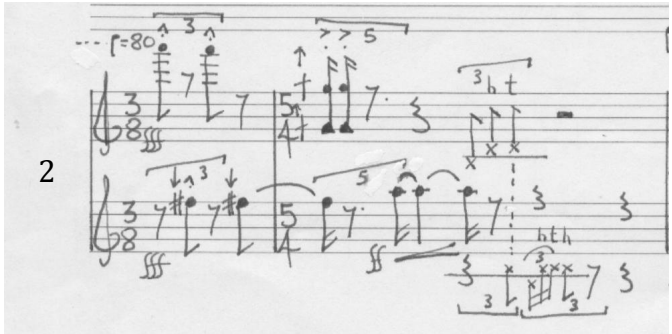
Table 6.2.2 Bars 20–38 (1:01–1:58) score pp.1–2

Bars:	**20-29**	**30-31**	**32-36**	**37-38**
Timings:	1:01-1:27	1:28-1:44	1:44-1:51	1:52-1:58
Shakuhachi & Bass flute:	**G1, G2, G3, G4, G8, G10**	**G1, G2, G3, G4, G10, G11, G15**	**G1, G2, G3, G5, G9**	**G4, G6, G10**

6.5.4 Bars 20–29 (1:01–1:27), p.1

The brief quietude of bar 19 is ended with an exhale-inhale gesture (G8) in bar 20, preceding the return of the loud tones of gestures 1 and 2, both with multiphonics (G3). This phrase continues for nine bars, ending in bar 29. Throughout the phrase, many of the previous gestures are used (G1, G2, G3, G4), however their distribution creates a development in the overall gestural rhythm as foot percussion makes more of an entrance as a distinct solo gesture, particularly in bar 27 (see below), as well as emphasizing individual instrument voices:

Example 6.1 Foot percussion in bar 27 (score p. 1)



(Denyer 1991:1)

In bar 20, the two flutes enter with an *mf* dynamic in a lower register than that of their previous entries, before reverting to the upper registers of previous iterations. These two tones (G1 and G2) both have multiphonics (G3) from the start, giving a loud, abrasive gestural rhythm; this combination is a typical composite gesture in this work, indeed the composite might be better characterised as a gestural motif per se. Foot percussion (G4) is added in bar 23 for both performers then in bar 25 there is a brief pause from the instruments, which is punctuated by foot percussion (G4) from the shakuhachi player. Both instruments then re-enter with loud tones (G1 and G2), without multiphonics, before a change to foot percussion for both performers. After a brief silence (G10), both performers punctuate the air with loud, sustained tones (G1 and G2) with multiphonics (G3).

6.5.5 Bars 30–36 (1:28–1:51), p.2

The high intensity gestural rhythm of the phrase ends in bar 29 with a definitive statement from the sustained tones (G1 and G2) with multiphonics (G3) and foot percussion (G4), followed by a brief pause (G10). In bar 30 first the shakuhachi, then the bass flute enter with trills (G15) on the same pitch – and if you were only listening, without the score for reference, it would be impossible to distinguish the two instruments. The only discernible difference is of the bass flute being slightly quieter than the shakuhachi, which is not necessarily an organological feature but more of a performance style. The bass flute trill is followed by a high sinusoidal tone (G11) on the shakuhachi, which leads straight into a descending sequence, in bar 31, of the gestural motif (G1, G2, and G3) with *glissandi* (G5).

This close is followed by a long silence (G10) in bar 32, then a deep inhalation (G9) as the players launch into another G1, G2, and G3 motif in bar 33. In bars 34–36, while the loud tones (G1 and G2) are used with foot percussion (G4), the interaction is not as heavy, as the foot percussion is more interspersed with the tones, thus leading to a lighter gestural rhythm. Bars 37 and 38 see a short phrase solely of foot percussion (G4), while the next phrase begins with a shakuhachi opening on the last beat of bar 38. The foot percussion interlude creates a

contrasting gestural rhythm to the phrases around it, bringing a timbral development to the gestural trajectory.

Table 6.2.3 Bars 39–70 (1:58–4:35), score pp.2–3

Bars:	**39-42**	**43**	**44-45**	**46-49**	**50-70**
Timings:	1:58-2:27	2:28-2:33	2:34-2:52	2:53-3:11	3:12-4:35
Shakuhachi & Bass flute:	**G1, G5, G6, G10**	**G1, G11, G6, G10**	**G7**	**G3, G5, G6, G11, G14**	**G1, G2, G3, G4, G5, G10**

6.5.6 Bars 37–42 (1:58–2:27), p.2

Thus far, the two instruments have mostly worked in concert, with simultaneous or asynchronous gestural mimesis, pitch and timbral unison, and pitch canon or substitution. These four bars mark the first phrase where the two instruments have gestural and melodic heterophony, with the gestural rhythm of the shakuhachi comparatively low compared to the high gestural rhythm of the bass flute. The shakuhachi descends through a microtonal sequence of an octave, which is mostly articulated with quiet tones (G6), *glissandi* (G3) and a trill (G15), while the bass flute utters several iterations of loud, single pitches (G1), in bars 39 and 40, which are in an inverse pitch direction to the shakuhachi, as the second iteration is an octave and a sixth higher than the first iteration.

The shakuhachi continues through bar 40 with short microtonal movements (G5), before finishing with a sustained, quiet C4 (G6), with the bass flute in pitch and gestural canon on C3 (G6), ending with silence (G10). This pattern of gestures has contracted the gestural rhythm throughout the phrase, ending with a low gestural intensity. This lower gestural rhythm is continued through bars 41 and 42, with repetitions of the sustained quiet tones followed by silences, however the bass flute then adds a quiet multiphonic (G3) to the bass flute voice in bar 42, thus increasing the gestural rhythm of these phrases.

6.5.7 Bars 43–49, 50–70 (2:28–4:35), pp.2–3

The gestural rhythm is further increased in bar 43, with a loud multiphonic from the bass flute (G1 and G3) and a high tone from the shakuhachi (G11), followed by large *glissandi* on both instruments in bars 47 and 48, silence (G10), and another high tone (G11) on the shakuhachi in bar 49. The gestural rhythm of these bars is more diverse and scattered than was the case throughout the opening with sections of heavy gestural rhythm interspersed with contrasting quiet gestural rhythms, however in bars 50–70 we return to the opening heavy gestural rhythm with iterations of G1, G2, and G3 punctuated with pauses (G10) in bars 52, 56, 58, and 70, and foot percussion (G4) from both voices in bars 58 and 70, and a *glissando* (G5) in both voices in bars 68–69.

Table 6.2.4 Bars 71–89 (4:36–6:15), score p.3

Bars:	**71-72**	**73**	**74**	**75-79**	**80-89**
Timings:	4:36-4:54	4:55-5:03	5:04-5:09	5:10-5:30	5:31-6:15
Shakuhachi & Bass flute:	**G10, G17**	**G1, G2, G3**	**G7**	**G3, G6, G11**	**G12**

6.5.8 Bars 71–89 (4:36–6:15), p.3

The energetic gestural rhythms of the previous bars are followed by the contrasting gestural rhythm of 'breath articulation only' (G17) in bars 71 and 72, with pauses (G10). From this low gestural rhythm we see an increase in the sinister deliberations of the gestural motif (G1, G2, and G3) in bar 73. Although this bar is only marked *mp* on the dynamics, its effect in contrast to the previous bar is such that it sounds louder than it is, which is why I have marked this as G1 and G2, rather than the moderato gesture (G19). From here the gestural rhythm contracts to the 'Ghost tone' (G7) in bar 74, followed by a sequence of high sinusoidal tones (G11) on the shakuhachi followed by low, quiet multiphonics on the shakuhachi with a quiet tone on the bass flute (bars 70–79). Bars 80–89 take the gestural rhythm down further with a *pppp* sequence of single whistle tones (G12) on both instruments.

For the first thirty-one bars the gestural rhythm has been heavy and intensive, revolving around gestures 1, 2, and 3, interspersed with lighter gestural rhythms; from bars 32–49 the gestural rhythm becomes more scattered and lighter, with greater variation. For twenty-one bars from 50 to 70 we see a reprise of the opening gestural motif (G1, G2, and G3). After this, the gestural rhythms again become lighter with a noticeable dynamic and timbral contrast. This contrast is developed through the introduction of new gestures such as the whistle tone (G12) and the breath articulation (G17).

Table 6.2.5 Bars 90–137 (6:16–7:34), score pp.4–5

Bars: / **Timings:**	**90-91** 6:16-6:20	**92-111** 6:21-6:51	**112-132** - 6:52-7:20	**133-137** 7:21-7:34
Shakuhachi & Bass flute:	**G1, G2, G9, G17**	**G3, G16, G19, G10**	**G3, G4, G5, G6, G10**	**G5, G10**

6.5.9 Bars 90- 137 (6:16–7:34,), pp.4–5

From the low gestural rhythm of bars 80–89, the pace is stepped up in bars 90–91 with an indrawn breath (G9), then three loud notes (G1 and G2) in unison, heralding in the next gestural rhythm. The developing gestural pattern in bars 92–111 contracts the overall trajectory, through the use of shorter and more scattered gestures by the two instruments. These gestures are performed in turn and in unison in a microtonal descending phrase with a quieter timbral ambitus and occasional timbral variations punctuations (G3, G16). There have been brief iterations of this lighter pattern previously, in bars 35 and 36, for example, but no such pattern sustained over 20 bars.

This lighter gestural pattern is a timbral exchange of quick moderate notes (G19), punctuated by voice sound gestures (G16) in bar 98, pauses in both voices (G10) in bars 98 and 101, and an iteration of the gestural motif with a loud sustained multiphonics tone (G1, G2, and G3) in both instruments in bar 102, and the pattern closes in bar 111 with a large pause (G10). The pattern of moderate notes (G19) is reprised from bars 112–132, however this time it is expanded with multiphonics

(G3) and foot percussion (G4), thus increasing the gestural impetus, within the gestural parameters of this section.

Bars 133–137 mark a development from the pattern in bars 90–132, with four bars of descending *glissandi* (G5). In bars 133–135 both instruments play sustained descending *glissandi*; whilst the gesture is mimetic the pitches are not, rather they are three pairs of chromatic and microtonal consecutive fifths. In bar 136 the bass flute sustains a tone over which the shakuhachi has a large, descending *glissando* (G5), reprising the *glissando* gesture with pitch and registral substitution and extension of the ambitus.

Table 6.2.6 Bars 137–178 (7:35–9:34), score pp.5–6

Bars:	**137-148**	**149-151**	**151-156**	**157-161**	**162-178**
Timings:	7:35-7:49	7:50-7:57	7:58-8:17	8:18-8:30	8:31-9:34
Shakuhachi & Bass flute:	**G3, G10, G19**	**G1, G2, G3, G10**	**G3, G6, G10, G19**	**G1, G2, G3, G4, G10**	**G1, G2, G3, G4, G10**

6.5.10 Bars 137–148 (7:35–7:49), p5

From the break in bars 133–137, at the end of bar 137 we return to the pattern of moderate (G19) quick repeated notes in both voices, which continues until bar 148, when the section closes. Multiphonics (G3) are briefly used by the shakuhachi in bar 139, but otherwise, do not come into play until the close of the section, in the flute voice where they serve as a transition to the next gestural rhythm of bar 149 onwards.

6.5.11 Bars 149–156 (7:50–8:17), p.5

These bars introduce dynamic contrasts using the gestural motif of G1, G2, and G3. Bars 149–151 are two sustained iterations of the *fff* multiphonic tones in both voices (G1, G2, and G3) with silences (G10) in between. At the end of bar 151 the sustained multiphonic unison gestures are repeated, but this time with an *mp* dynamic and with substitution to a lower register. This dynamic contrast is a gestural transformation whereby the original gesture has been inverted in dynamic and register for variation, which has the effect of reducing the gestural

rhythm of the sequence. The gestural rhythm is reduced still further with the use of single tones, in pitch and gestural unison, in bar 155, articulated *pp*, followed by silence (G10) in bar 156.

6.5.12 Bars 157–178 (8:18–9:34), pp.5–6

From here we move into a short exchange sequence of loud, single tones on the shakuhachi succeeded by foot percussion (G4) in the bass flute in bars 157–159, finishing with a high tone on the shakuhachi. In bar 160 the shakuhachi has a low register multiphonics tone (G2 and G3), in unison with a single tone (G1) on the flute. This is followed by a high register opening on the shakuhachi, with a large descending *glissando* (G5) of an octave and a half. Although these few bars continue the lighter gestural rhythm of the close of the previous phrase, they develop the gestural rhythm with the use of other gestures such as the foot percussion (G4), and in the dispersal of those gestures in the sequence. This sequence would also have the added impact of the exchange between the two voices when seen in live performance, as the exchange would be visible. Without the score or live performance, it would be impossible to know that this was an exchange between two performers.

Bars 162–178 represent a return to the opening gestural motif of loud, heavy multiphonic tones (G1, G2, and G3) in gestural unison, interspersed with foot percussion (G4) in bars 164 and 169 and pauses (G4), such as in bars 168, 170, 171, and bar 176, although here this reprise lasts for only sixteen bars rather than constituting the dominant form over 89 bars. The gestural rhythm established in these bars is developed through dynamic and timbral alternating contrasts, with a gestural inversion to the 'Ghost tone' (G7) bar 179, then a return to the loud tones with multiphonics (G1, G2, and G3) and a further brief 'Ghost tone' in bar 180. This entire sequence is effectively a gestural call-and-response, where the timbre and dynamics are the gestures exchanged, rather than pitch.

Table 6.2.7 Bars 179–213 (9:36–11:19), score pp.6–7

Bars:	**179**	**180-204**	**205-209**	**210-213**
Timings:	9:35-9:39	9:40-10:46	10:47-11:02	11:03-11:19
Shakuhachi & Bass flute:	**G7**	**G1, G2, G3, G4, G5, G10, G11, G13, G14, G15**	**G4, G5, G6, G10**	**G1, G2, G3, G10**

6.5.13 Bars 180–204 (9:40–10:46) pp.6–7

Bars 180–204 represent an intensive gestural rhythm employing a diverse array of gestures, as can be seen in the table above. This sequence has the most gestures in the work, although the use of familiar gestures such as the loud tones (G1 and G2) is more fragmentary, with punctuations from lighter gestures, than the continual heavy sustained tones used in the opening sequence. Loud tones with multiphonics (G3) are used throughout but again, their use is more infrequent with greater interspersal of other gestures. These lighter but timbrally salient gestures are *tremolos* (G13), throat flutters (G14), and trills (G15) alongside foot percussion (G4) and high, sinusoidal tones (G11). The salience of these *tremolos*, throat flutters, and trills is in part their use amid surrounding non-*vibrato* tones and their untypical status as gestures; these gestures are infrequently used in the composition.

Contrasts are played off between the different types of *vibrati* and trills. In bar 184, the shakuhachi plays a flutter (G14) on a descending *glissando* (G5) in the first half of the bar, which contrasts with a *tremolo* played on an ascending *glissando* in the second half of the bar. Under the shakuhachi *tremolo* (G14), the bass flute plays a flutter (G13), thus employing amodal mimesis (Cox 2006:50–55), where the gesture is transferred to another instrument. A similar contrast is achieved in bars 188 and 189 where the shakuhachi plays a *tremolo* (G14) in the second half of each bar, while the bass flute plays a trill (G15). Otherwise, the bass flute plays a timbrally salient *tremolo* in bar 198 under an ascending shakuhachi *glissando*, in between high tones (G11) and multiphonics (G3) on loud tones (G1 and G2). The sequence ends with foot percussion (G4) then a long silence (G10).

6.5.14 Bars 205–213 (10:47–11:19), p.7

Foot percussion (G4) opens and comprises most of the next sequence which, after the intensive gestural rhythm of the previous sequence, is much more restrained. We hear a rapid iteration of two foot percussion beats in bar 205, followed by a pause (G10), then a high ascending *glissando* (G5 and G11) on the shakuhachi in bar 206, with *diminuendo* as the tone progresses, ending in bar 207. Throughout bars 207–209, we hear three single foot percussion beats, one in each bar. From this sequence with a lower gestural rhythm, we plunge into a brief reprise of the opening gestural motif of loud, heavy tones with multiphonics (G1, G2, and G3) for bars 21–13, accompanied by a change in register halfway through, which further increases the timbral tessitura and thus the gestural impetus of the sequence.

Table 6.2.8 Bars 214–275 (11:20–17:55), score pp.7–9

Bars:	**214-222**	**223-224**	**225-242**	**242-247**	**248-275**
Timings:	11:20-11:59	12:00-14:21	14:22-15:32	15:32-16:00	16:01-17:55
Shakuhachi & Bass flute:	**G7, G11**	**G5, G18, G10**	**G1, G2, G3, G9, G10**	**G4, G10**	**G6**

6.5.15 Bars 214–222 (11:20–11:59), pp.7–8

From the reprise of the heavy opening gestural motif in bars 210–213, we invert the timbral and dynamic gesture with the contrasting 'Ghost tone' (G7), in a longer ghost sequence than has previously been the case, running from bar 214 to bar 220. The instruments play in octave canon with gestural mimesis throughout, and the sequence ends with a high, sustained shakuhachi tone (G11) in bars 221 and 222. The rhythm of these gestural sequences, the 'Ghost tone' and the sustained tone marks the gradual transformation of the gestural trajectory from heavy to lighter, as the overall emphasis shifts from the heavy tones to the lighter timbres, even though the trajectory has been interspersed with short reprises of the opening motif.

6.5.16 Bar 223–224 (12:00–14:21), p.8

This lighter gestural trajectory is continued through the long sequence in bar 223, p.8 of the score. This distinctive phrase comprises a long descending sequence of individually articulated tones by both instruments in gestural and pitch unison with throat oscillations (G18), many of which have ¾ tone intonations, and each one of which has microtonal *glissandi* throughout most of the descent. The rate of descent gradually slows and is broken up into short sections, interspersed with pauses (G10) and a voice only gesture (G17).

The entire sequence covers an interval of about a tenth, and as the musicians approach the close, slows with a change from unison to an infrequent exchange of tones between the instruments, and a further *diminuendo* from *ppp* to *pppp* at the close; the sound diminishes into silence so gradually that it is hard to distinguish when the sound ends and silence begins, or as it is known in Japanese music, *ma*,[214] and the sequence closes in the silence (G10) of bar 224. This sequence presents a timbrally salient gestural phrase as it is the sole iteration and is, moreover, a substantial iteration marking a distinct development in the gestural trajectory of the work.

6.5.17 Bars 225–242 (14:22–15:32), pp.8–9

From the silence of the diminishing sequence in bars 223 and 224, we have a further reprise the opening heavy motif (G1, G2, and G3), preceded by an inhale gesture (G9), which is followed by a sequence solely of foot percussion (G4), from bars 242–246, interspersed with a pause in bars 243 and 245. This clearly demarcated foot percussion sequence is succeeded by the longest silence (G10) in the work in bar 247, lasting fourteen seconds from 15:47–16:01. In bars 248 onwards we see the final gesture of the work, a succession of sustained quiet tones (G6) on both instruments in gestural, pitch and temporal mimesis, interspersed with pauses (G10), until the close of the work in bar 275. These quiet tones start with short durations in bars 248–254, then are sustained for longer with more interspersal of pauses (G10) in the remaining bars.

[214] See Chapter 4, §4.4.2.

Throughout this last section, from bar 223 onwards, we have seen a succession of clearly defined gestural rhythms in phrasal units, from the throat oscillations (G18) of bar 223, to the reiteration of the heavy opening motif (G1, G2, and G3) in bars 225–242, then the foot percussion (G4) of bars 242–246, and the silence (G10) of bar 247, before the closing quiet gestural unit (G6) of bars 247–275. Not only do the gestural phrasal units have clearly denoted rhythms, the gestures themselves become quieter and slower as the work moves to a close and the timbres contract to silence.

6.6 Conclusion.

As an analytical tool, gestural analysis based around categories of timbre and dynamics was particularly useful as a means by which this avant-garde work could be approached, given the emphasis on timbres performed on the instruments and by human breath throughout the work. From the discussion of gestures, gestural rhythms and trajectory, we are able to see how the gestural rhythms of timbre and dynamic change throughout this work, giving an initial timbral trajectory with a higher inharmonicity, intensity, and diversity, which gradually become less dense, with less inharmonicity, and greater homogenisation of gestural rhythms as we move through the work.

Gestures also become more sustained within the rhythms, as individual timbres are explored in extended sections. Gestural development of instrumental timbres and human breath timbres are key to the momentum and structural variation within the work with a wide range of timbral sounds on the instruments, ranging from the heavy, loud tones (G1 and G2) to the high sinusoidal tones (G11), and the breath inhale and exhale-inhale sounds (G8 and G9) to the throat flutters (G14) and oscillations (G18). These gestures are further explored through registral variation, and dissonances exploiting features such as microtonal movement, enharmonic dissonance and intervals of a second, all of which take these two instruments and the interaction between them some distance from more conventional compositions.

The Tender Sadness of Tyrants as they Dance (1991) is a distinctive, highly original work which is very different to the *O Gloriosa Domina* improvisation (Chapter 5) and to Regan's *Forest Whispers…* (Chapter 7) even though *Tyrants* is still exploring the central theme of shakuhachi timbre and texture in contemporary composition. Like Regan, Denyer focuses on the sound and human breath, however whilst Denyer has a keen awareness of the cultural contexts of the shakuhachi sounds, he is keen to take the timbral and microtonal possibilities of the instrument into new territory, rather than be 'seduced' by the historical heritage of the instrument.

From his introduction to the shakuhachi by Iwamoto and Iwamoto's encouragement of new possibilities for the instrument, and from his studies of Japanese music, he has explored the timbre of the shakuhachi in a number of compositions of which *The Tender Sadness of Tyrants as they Dance* (1991) is just one example, though nonetheless indicative of his general approach. Through his explorations he has taken the shakuhachi and the bass flute out of their usual environments to a new space where the two instruments can meet in his 'hybrid sonority', giving a fresh interpretation to shakuhachi sounds from *muraiki* to *ma*.

7 Analysing gestures in Marty Regan's *Forest Whispers…* (2008) for shakuhachi and cello

7.1 The context of the composition

The American composer Marty Regan (b.1972) is a prolific writer of works for traditional Japanese instruments and is affiliated with Aura-J, an ensemble specialising in contemporary-traditional Japanese repertoire. He spent several years studying composition in Japan under the tutelage of the prolific *shin-hōgaku* composer Minoru Miki (Chapter 3). While Regan was studying in Japan, his composition *Song-poem of the Eastern Clouds* for shakuhachi and 21-string koto (2001) was premiered at the fifth Annual Composition Competition for Traditional Japanese Instruments. Since then, a number of his works have been premiered, recorded and released on CDs both in Japan and elsewhere and he has also translated Minoru Miki's orchestration manual for Japanese instruments *Composing for Japanese Instruments*, with the translation published in 2008.[215]

As outlined in Chapter 1,[216] Regan has written works for a number of Japanese instruments, including shakuhachi, koto, shamisen and biwa, although the shakuhachi remains a favourite, with fifteen compositions listed on his website, as of March 2015.[217] In his works, he has explored the spaces between traditional, non-traditional, and cross-cultural contexts for Japanese instruments, including five compositions in which Japanese instruments are combined with those of the western classical tradition:

1. *The Memory Stone* (2012) for string quartet, shakuhachi, 21-string koto, and four singers
2. *Hydrangea* (2012) for shakuhachi and double bass
3. *Forest Whispers…* (2008) for shakuhachi and cello
4. *Voyage* (2008) for shakuhachi and string quartet
5. *In Remembrance* (2006) for shakuhachi and piano trio

[215] http://www.martyregan.com/biography/ (20 Mar. 2015).

[216] See Chapter 1, §1.3.3.

[217] http://www.martyregan.com/list2/shakuhachi/ (20 Mar. 2015).

As is immediately apparent, all five of these cross-cultural compositions use western orchestral string instruments in one form or another and the only other western instrument used is a piano in *In Remembrance* (2006). Indeed throughout his corpus, the only western instruments listed are strings and piano, and of these string instruments, the most frequent is the cello which he has combined with shakuhachi in *Forest Whispers…* (2008), and with koto in a further four compositions.[218]

7.2 *Forest Whispers…* (2008)

Composers are often attracted to the timbral and microtonal possibilities of the shakuhachi[219] and Regan is no exception. In *Forest Whispers*…(2008) for shakuhachi and cello, rather than focusing on juxtapositions of Japanese and western traditions as Takemitsu did in *November Steps* (1967),[220] Regan aims to blend the two traditions by focusing on their concordances, through use of imitative melodic motifs, and timbral and microtonal gestures.[221]

He uses these imitative gestures in this work to create a mutual meeting space for the two instruments so that the shakuhachi and the cello meet and combine through motif and gesture in a common musical space. Regan makes use of gestural techniques common to both: the subtle timbral and dynamic change of a tone over time, *portamenti* and *vibrati*. He also employs amodal mimesis with the translation of shakuhachi techniques to the cello, such as translating the inharmonicity of shakuhachi *muraiki* to the cello, which arguably creates a cello *sawari*, the raspy effect of the biwa and shamisen.[222]

The use of such techniques creates a commonality of timbral and pitch movement, within a space which is both rhythmically indeterminate and outside western key

[218] http://www.martyregan.com/list/strings/ (20 Mar. 2015).

[219] See Chapter 2, §2.4 and 2.5.

[220] See Chapter 2, §2.2.3.1.

[221] http://www.martyregan.com/list2/shakuhachi/forest-whispers/ (23 Mar. 2015).

[222] See Chapter 4, §4.3.1.

signatures, thereby blurring "imagined boundaries" between the two traditions.[223] Whilst the resulting interplay between the two instruments is not traditionally Japanese, the use and application of gestures such *muraiki* and *koro*[224] are identifiably Japanese as is the attention given to the *shape* of timbral and dynamic change in sustained notes. These gestures, together with melodic gestures, make a significant contribution toward the creation of a gestural rhythm of tension and relaxation throughout the individual sections within the work and between the sections, giving an overall gestural trajectory.

7.3 The instruments

Regan's choice of the cello resonates with the findings from Chapter 3 of string instruments being common choices for combinations with the shakuhachi,[225] as a result of their timbral and microtonal flexibility and analogous techniques (Lependorf 1989:233). The cello also has the advantage of having a register distinct from the most commonly used shakuhachi length of 1.8 with a base pitch of D4. Furthermore, string instruments also have greater tuning flexibility than many other western instruments, making them more adaptable to other musical systems. The violin, for example, is a well–established melody instrument in South Indian classical music (Capwell 1986:785) well–suited to the microtonality of the genre.

As an instrument combined with the shakuhachi, the modern cello has considerable timbral and microtonal possibilities, enhanced by a significant resonance capacity. Although a different physical focus is involved on the cello than on the shakuhachi, the close physical (proprioceptual) attention that the student is taught to apply to the instrument in relation to subtle nuances of sound texture and pitch movement is very similar between shakuhachi players and cellists, and other string players. As Lependorf (1989:238) observes with reference to *vibrato*, "… the performer creates a vibrato not diaphragmatically as on other

[223] http://www.martyregan.com/list2/shakuhachi/forest-whispers/ (23 Mar. 2015).

[224] Koro, a.k.a. koro-koro.

[225] See Chapter 3, §3.3.3.

woodwinds, but rather by shaking the head from side to side. The overall effect, in fact, sounds closer to a string vibrato than a woodwind one".

While both instruments have a similar range of timbral and microtonal flexibility, and corresponding commonalities of technique, there are differences in the type of gesture that can be produced, not least because one is a wind instrument and the other a bowed string instrument. Further distinctions could potentially be made based on organology, for example, whether a gut-strung cello was used rather than a steel-strung instrument; gut strings are less resonant but are more physically flexible and thus more conducive to a greater range of microtonal movement.[226] However, microtonal movement can also be achieved on a steel-strung cello via finger slides along the string, although there will be less range of timbral articulation. This type of articulatory distinction, of stroke direction on a string, is after all, the type of distinction tabulated in notation for instruments such as the biwa, koto and Chinese *qin*[227] in order to produce subtle tone colours.

Although there is some adaptability in tuning and scale systems on the cello, it is not a tuning free-for-all. For the shakuhachi, most twentieth century instruments are calibrated to equal temperament pitches (Day 2011:73–74), with minor tuning variations accounted for with different length flutes, bore widths, and via alteration of head angle relative to the instrument. Whilst the standard shakuhachi is a five-hole instrument with a natural pentatonic anhemitonic scale,[228] other scales can be performed on the instrument through a combination of partial hole cover and head angle. The standard cello is tuned in fifths, which can also be tuned to a different system, although the cellist should be consulted for feasibility of the proposed alternative and a second pre-tuned instrument may be required. Re-tuning a cello can be time-consuming and awkward with a heightened possibility of string breakage therefore it is best not to do this in situ.

[226] There are also contemporary hybrid strings available where, for example, a gut core is wrapped with metals such as tungsten.

[227] See Chapter 4, §4.4.2.3.

[228] See Chapter 2, §2.1.

Nonetheless, the overall flexibility and many points of timbral contact between the two instruments offer opportunities for collaborations despite their very different musical environments. Indeed thirty-six such collaborations have been explored by composers, of which five are duos for the two instruments and the remainder are for ensembles.[229]

These composers include the Japanese post-war composer Ryōhei Hirose (1930–2008) with *Sai* (1973) for shakuhachi, cello and percussion;[230] Gorō Yamaguchi (1933–1999), who was a shakuhachi player with "Living Treasure"[231] status, with *Suite* (1963) for shakuhachi, koto and cello; and Jeffrey Lependorf (1942-), an American composer and shakuhachi master,[232] with *Scivias* (1989) for shakuhachi and cello,[233] which subsequently formed part of a shakuhachi-cello collaboration released on CD[234] (Benitez et al. 1994:243, 253, Samuelson 1994:91). More recently, Donald Reid Womack, an American composer based in Hawaii, wrote *Breaking Heaven* (2010) for shakuhachi, 13-string koto,[235] and cello, which was released by Albany Records on an album of the same name in October 2014,[236] and displays an inventive use of textures and tonality between the three instruments.

The recording of *Forest Whispers…*(2008) used here was performed by Seizan Sakata on shakuhachi and Asako Hisatake on cello and released by Navona

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[229] See Chapter 3, §3.3.5.2.

[230] Benitez and Matsushita (1994:243).

[231] http://www.komuso.com/people/people.pl?person=692 , http://www.shakuhachi.com/H-Yamaguchi.html , http://www.shakuhachi.com/H-Yamaguchi-Blasdel.html (18 May 2015).

[232] http://www.jeffreylependorf.com/?page_id=8 (18 May 2015). Also see Chapter 1, §2.3

[233] http://www.jeffreylependorf.com/?page_id=14 (18 May 2015), Samuelson (1994:91).

[234] The shakuhachi–cello project, was a combination of improvisations and compositions, performed by the shakuhachi player Ronnie Nyogetsu Seldin and the cellist Gideon Feldman, and released as the album *Sound of Distant Deer* (1998) by Gadfly Records.

[235] The review by Oteri on newmusicbox.org of Donald Reid Womack's composition *Breaking Heaven* for shakuhachi, koto, and cello lists the koto as 21-string, however Womack indicates a 13-string instrument on his website – see footnote 85 for the weblink.

[236] http://www.newmusicbox.org/articles/newmusicbox-mix-2014-staff-picks/ , https://itunes.apple.com/us/album/donald-womack-breaking-heaven/id924746274 , http://donaldwomack.com/#works-jpn (18 May 2015).

Records LLC. on a CD of Marty Regan's works, *Forest Whispers… Selected works for Japanese instruments, Vol. 1* (2010).[237] Seizan Sakata, who received tutelage in the *Tozan* style, has become a well-known performer on the international scene with experience in both cross-cultural works and in *hōgaku* performance.[238] He is president of the Aura-J ensemble, an ensemble derived from the Japanese section of Minoru Miki's Orchestra Asia.[239] Aura-J specialises in performance on traditional Japanese instruments, and also includes traditional instruments from elsewhere in Asia, with the aim of promoting these instruments through *shin-hōgaku*/*gendai-hōgaku* and contemporary cross-cultural repertoire such as that of Regan's *Forest Whispers…* (2008).

It is worth reiterating that Regan was a student of Aura-J's founder, Minoru Miki, for several years and translated Miki's text *Composing for Japanese Instruments* (2008), so has established connections to the performers beyond basic employment. Asako Hisatake is a cellist who has been involved in several cross-cultural compositions, as indicated by her performance on both Regan and Womack's works. As a result she has familiarity with the sound-worlds and musical priorities of traditional Japanese instruments and this can be seen in her ability to evoke effects such as *sawari* and other timbral shades on the cello. Regan gives Sakata and Hisatake considerable freedom to interpret the work, so there are instances when effects such as *muraiki* or cello *sawari* are employed that are not notated in the score.

[237] http://www.martyregan.com/store/recordings/forest-whispers/ (30 Apr. 2015).

[238] See Chapter 2, §2.2.

[239] See Chapters 3, §3.1.2 and http://www.ora-j.com/englishright.html (18 May 2015).

7.4 Organisation and scoring of the work

The duration of *Forest Whispers…* (2008) is listed as circa. 14 minutes, and the tempo as ♩=60–66, with the directive that it should "ebb and flow".[240] An arrhythmic time signature is given and rests are used to denote breath. Whilst it is not uncommon to have tempo flexibility such as that of the unmetered *O Gloriosa Domina* improvisation (Chapter 5), here it is specified as a structural directive of the performance that the performers should actively seek to evoke, through the arrhythmic time signature and tempo instructions. As is common in shakuhachi *honkyoku* and many contemporary notational conventions (Cronin 1994:77–81, Lependorf 1989:242–243, Takemitsu 1967), Regan uses proportional notation for both instruments throughout the piece as a guide for the performers in the 'ebb and flow' phrasing with the aim of constructing a sense of time based on a human breath.[241]

A 1.8 shakuhachi with a base pitch of D is specified, alongside a cello with standard tuning of A–D–G–C. A key signature is given in the staff notation of B♭, however the music itself is not in a key as such. Much melodic movement is in pitch spaces and phrasal shapes that are both outside the diatonic scale and are also uncommon in traditional shakuhachi music. Therefore, the overall melody correspondingly moves in a direction that is unusual for both western and Japanese melody forms, although elements from both traditions are present. The composition is divided into eight sections as follows, and both section headers and measures are marked on the score:

[240] See the score performance directions, CD1 track 7. Also see the author's transcription in Chapter 5, Example 5.2 for another example of proportional notation in shakuhachi composition.

[241] http://www.martyregan.com/list2/shakuhachi/forest-whispers/ (10 Jun. 2015).

Table 7.1 Structure of Marty Regan's *Forest Whispers...* (2008)

Score p.	Section	M.m.	Timings	Duration	Instrumentation
1–2	**Opening**	**1–8**	0:00–2:02	2:02	Solo shakuhachi
2–4	**A**	**9–16**	2:02–:408	1:54	Solo cello
4–5	**B**	**17–26**	4:08–6:01	1:53	Shakuhachi and cello
6	**C**	**27–33**	6:01–7:10	1:09	Shakuhachi and cello
6–7	**D**	**34–38**	7:10–8:22	1:12	Shakuhachi and cello
7–9	**E**	**39–47**	8:22–10:12	1:50	Solo shakuhachi
9–11	**F**	**48–57**	10:12–12:17	2:05	Shakuhachi and cello
11–12	**G**	**57–67**	12:17–14:16	1:59	Shakuhachi and cello

The shakuhachi opens the work and establishes key melodic motifs and gestures, which are subsequently used in imitative phrasing throughout the composition. In the opening section, Regan introduces the shakuhachi melodic motif, which he gradually expands both melodically and with timbral and microtonal gestures through the course of his opening section. In the second section, A, the cello reprises the melodic material of the opening and echoes the gestures of the shakuhachi with amodal mimesis (Cox 2006:50–55). In the third section, B, Regan begins his development from the key melodic motif, and development of the gestural trajectory, on both instruments, and this development continues through the shorter C and D sections. Section E, the sixth section, is for solo shakuhachi and is the climax of the work, both melodically and gesturally, before Regan reprises section B in section F. Section G marks the closing sequence of the work with a gradual reduction in melodic and gestural activity towards the final tones, dwindling to a final silence on both instruments.

As previously mentioned, the shakuhachi and cello meet throughout the work in a mutual space of mimetic timbral and microtonal gestures and melodic motifs. Many of the melodic motifs are straightforward transfers and exchanges between the two instruments, in which the cello often acts as a mimetic echo of the shakuhachi. Furthermore, although the gestures are inseparable from the melody in creating shared space and momentum within that space, the gestures have their own distinct trajectory in relation to the melodic material.

Given the intertwined relationship between gesture and melody in this work, much of the analysis concerns both gesture and melody. As in Chapters 5 and 6, I have created a gestural overview based upon Uno Everett's (2002:132, 150) presentation of Takemitsu's *November Steps* (1967), Ben-Tal's (2012:251) and Hatten's (2006:8) respective definitions of gesture, Tsang's gestural rhythms (2002:35–36), and McAdams et al. (2004:157) gestural trajectory, with reference to Cox's (2006:50–55) definition of amodal mimesis as needful.

7.4.1 Performance directions, notation, and gestures

Regan qualified the use of mimetic gestures[242] to find common spaces for the shakuhachi and the cello in *Forest Whispers…* (2008), and these gestures come in the form of melodic motifs, and timbral and microtonal gestures. These gestures function as "bound expressive units" (Ben-Tal (2012:251), and are imitated or echoed throughout the work at individual, phrasal and sectional levels. In defining my gestural set I have focused upon the individual timbral and microtonal gestures as "bound" gestures, with the inclusion of one melodic phrase defined as a gesture: the ascending melodic motif from which much of the work is built.

Negotiating boundaries in the definition of a gesture is problematic, particularly with regard to music structure; where is the line between the two? Should there be a boundary between them? For the purposes of this discussion I have chosen to define gesture as timbral and microtonal "expressive units" which have distinct boundaries, and the ascending melodic motif, which also has parameters.

[242] http://www.martyregan.com/list2/shakuhachi/forest-whispers/ (10 Jun. 2015).

Designating the melodic motif as a gesture again raised questions over its parameters. If the melodic parameters were strictly followed, then every minor melodic variation would not be that gestural type. If, instead, the broad melodic shape was recognisable, then the melodic gesture could be identified as variant belonging to the same gestural type, an issue discussed by Nettl (2005:110–111) with reference to the songs of Ishi, the last Yahi Indian.

Whilst it would be possible to have a melodic gesture where every variation was a variant of the original, this would further complicate a gestural overview where the aim is to show iterations of a timbral gesture within a larger analysis. Therefore I have elected to indicate the ascending melodic motif as a basic gesture, with all further iterations, variants or otherwise, treated as the same type on the gestural overview; elaboration on their musical presentation is considered in the accompanying analysis. Otherwise, the remaining gestures for both instruments comprise sixteen individual microtonal and timbral techniques and one melodic technique. Some of these gestures are relevant to both instruments, such as *niente*, *vibrato* and a *portamento*, while others are instrument specific, either by design or convention. The full list is as follows and is subsequently discussed in more detail:

Table 7.2 Gestures used in Marty Regan's *Forest Whispers...* (2008)

G1: Grace notes	(shakuhachi and cello) – short extra notes.
G2: Slide	(both) – referred to as *suri* in the shakuhachi voice.
G3 : *niente*	(both) – diminish to silence.
G4: *glissando*	(shakuhachi) – type of slide in this composition.
G5: *furikiri*	(shakuhachi) – portamento down-up.
G6: *vibrato*	(both) – vibrating the note.
G7: *koro*	(shakuhachi) type of *tremolo* with multiphonics.
G8: *muraiki*	(shakuhachi) – inharmonic breathy noise.
G9: *sorane*	(shakuhachi) – lighter inharmonic breathy noise.
G10: *sawari*	(cello) – the same raspy effect as *muraiki* on a string instrument.
G11: *pizzicato*	(cello) – plucked rather than bowed strings.
G12: double-stops	(cello) – two notes played simultaneously.

G13: accent	(cello) – emphasis on a note, usually with heavier bow pressure.
G14: *tenuto*	(cello) – deliberate performance of the full value of the note.
G15: melodic motif	(both) – ascending melodic motif.
G16: trill	(shakuhachi) – rapid alternation of two notes.
G17: harmonics	(cello) – partials above the fundamental, sounded by touching a string node.
G18: *ō-meri*	(shakuhachi), large lowering of the head to lower the pitch.

Most of these gestures are represented using conventional staff notation and performance directions, however nine require additional notation and explanation. As illustrated in the transcription for the *O Gloriosa Domina* shakuhachi and biwa improvisation (2011),[243] Frank Denyer's *The Tender Sadness of Tyrants as they Dance* (1991), and by authors such as Lependorf (1989), Cronin (1994), Miki (2008:35–54), writing for shakuhachi within a staff notation environment requires additional notation for gestures outside the purview of staff notation. These notational additions are often based on shakuhachi tablature. This combination of notations is the approach used by Regan. The additional notation is listed in the performance directions preceding the score and while the directions mostly refer to the shakuhachi, several of the directions refer to both instruments. A full list of the performance directions can be found in the score on CD 1, track 9.

The shakuhachi gestures used are either traditional, such as *furikiri* (a.k.a *nayashi*) or are adaptations of traditional techniques, such as the *glissando*, to fit a cross-cultural medium. Microtonal gestures includes the three types of *portamenti* gesture listed above: a upward slide for both instruments, referred to in the shakuhachi voice as *suri* (G2), and two shakuhachi portamenti, *furikiri*, a down-up *portamento* (G5), and an upward *glissando* (G4). As aforementioned, the terms *nayashi* and *furikiri* are often interchangeable; as Regan uses *furikiri* in his performance directions, I will do likewise throughout the discussion. Several types of timbral gesture are given including two types of *muraiki*: *muraiki* (G8) and

[243] See Chapter 5, Example 5.2a and 5.2b.

sorane (a lighter *muraiki*) (G9), alongside the other timbral, pitch and dynamics gestures. These comprise *koro* (a.k.a. *koro-koro*) (G4), approximate pitch markings, and an *o-meri* (large *meri*) gesture (G18), both with specified shakuhachi fingerings and both producing distinct timbres and pitches. The western art music instruction *n.* for *niente* (G3) is also included. This gesture is the technical equivalent of the Japanese musical aesthetic known as *ma*[244] and is used by both instruments.

Some of the gestures used in the work are instrument specific techniques such as *koro* (G4) on the shakuhachi or double-stops on the cello, where more than one string is played simultaneously. *Koro*, outlined in the discussion of shakuhachi techniques in Chapter 5, is a specific shakuhachi multiphonics *tremolo* with a distinct timbral articulation in which two fingers are rapidly alternated with slight latency between the alternations; this is not an effect easily transferred to the cello. Regan describes *koro* as a trill with a special fingering, in which "Each note in the pair is executed with a different fingering, creating slightly different timbres and frequencies".[245] In the glossary on the website of the European Shakuhachi Society, *koro* is described as a *tremolo*.[246] Whilst *tremolo* is a useful guide, the definition is limited in its ability to convey the distinctive shakuhachi *koro* technique in that a *tremolo* refers only to repeated pitches and not to *how* those pitches are repeated and therefore, what happens *in-between* those pitches articulated with latency.

This in-between pattern is that which confers a distinctive sound in *koro*. The pitches repeated in *tremolos* may be a single repeated pitch, such as with a back and forth bow movement, or a *tremolo* can be a pair of repeated pitches where the fingering for the second pitch is quickly added and removed (or vice versa) as necessary. For *koro*, the fingerings for the pitches are *played in turn*. The player alternates rapid striking of each finger–hole in turn with a brief lapse in between each finger action when both fingers are down, which generates a quick in–between note. How this in–between note sounds will depend upon the overall

[244] See Chapter 4, §4.4.2.

[245] Regan (2008), score performance directions, CD 1, track 7.

[246] http://shakuhachisociety.eu/resources/glossary/ (18 Jun. 2015).

fingering used, but it is nonetheless integral in defining the gesture. Regan clarifies that he uses *koro* to embellish a previously established pair of pitches in the score. Of the shakuhachi-specific techniques, *koro* stands out as the one most reliant upon prior shakuhachi knowledge for its execution.

Other gestures are common to both the shakuhachi and the cello, such as the upward *portamento* slide (G2) and *vibrato* (G6), the latter of which is to be added at the player's discretion. Whilst gestural types such as *portamento* may be feasible on both instruments, particular variants of that gesture may not be common on that instrument. One example of this is the shakuhachi *portamento* technique known as *furikiri* (*nayashi*) (G5), represented on the score using a proportional 'v' sign in the middle of a line. As explained in Chapter 4, *furikiri* is a quick *portamento* down and up during, or at the end of, a tone, achieved by a quick head dip.[247]

There is no reason why the *furikiri* effect could not be done on a cello via a string slide, given that one-way *portamento* slides are relatively common, however Regan chooses not to do so. Instead he retains the *furikiri* technique as a distinct shakuhachi gesture. By contrast, the one-way *portamento* common to and used on both instruments throughout the work is known on the shakuhachi as *suri* (G2), and is referred to as such in the shakuhachi voice on the score alongside a diagonal line on the staff. The term *suri* is *not* used in the cello part, where the slide is solely indicated by the proportional diagonal line on the staff.

Regan indicates a further *portamento* gesture for the shakuhachi – a "subtle ascending *glissando*" (G4) associated with fingering around the break point of the instrument, where all the holes are opened and closed, while the head position is changed from *meri* to normal. This is indicated on the score with a curved diagonal line. Regan's *glissando* ascends to a higher *indeterminate* pitch; in other words, changing from one discrete pitch to another is not the focus. Rather the focus is on the movement *between* a starting pitch and wherever you happen to finish, and it is this movement that is the gesture.

[247] See Chapter 4, §4.4.2.

Regan also identifies indeterminate pitch markings, for instance where specific shakuhachi fingerings are used, and Regan notes that it is "a note marked with an 'x' in place of a proper notehead" (Regan 2008, performance directions), with fingerings indicated above the score as appropriate.[248] The performance priority is the timbre and pitch produced by the specified fingering rather than diatonic conformity, however, as has been discussed in Chapter 2, transposing shakuhachi tablature to staff notation results in a shift of musical priorities to a world that privileges precise pitching. As the norm is staff notation is precise pitching, Regan needs to qualify that the pitch is approximate in the score. This qualification also gives the musicians space to use their techniques and credits their musicianship as a collaborative part of the performance process in interpreting and implementing the instructions to achieve the best effect.

While these indeterminate pitches are designated within the work, I do not automatically consider them gestures. The approximate pitch marking is not significant per se, rather it is used with specified fingerings which give subtle, but distinct timbres and pitches. Although these resultant pitches may lie outside diatonic norms, they maintain an intervallic integrity within their musical context, i.e. shakuhachi norms. Examples of this include p.1 of the score, measure 5, in the grace note pairs. In this setting, the grace note gesture (G1) takes priority and within the gesture, it is more important that the integrity of the intervallic shape is maintained, relative to its starting pitch, rather than the precise pitch of either. After all, relative pitch and intervallic integrity are more important than notions of absolute pitch (Hughes 2000:104, Phong 1986:61).[249]

So far we have discussed gestures that are instrument specific and gestures that are used on both instruments, however, a further distinction occurs with gestures that are feasible on both but which are not denoted as specific techniques and/or are not commonly used, such as the *muraiki* effect on the cello. Shakuhachi *sorane* (G9), a lighter, shorter *muraiki*, is represented by a cross atop a conventional staff

[248] Unfortunately, the print quality of the score supplied is not high enough to render the 'x' notation clearly. I contacted Marty Regan to clarify this but received no response.

[249] See Chapter 4, §4.4.3.

notation note; this gesture is not carried across to the cello. *Muraiki* (G8) is represented on the staff with a proportional ideographic zigzag, indicating strength and intensity as appropriate, much like its representation in traditional shakuhachi tablature, and Sakata also adds unnotated *muraiki* in interpretation of the score; this is indicated in the gestural overview. Regan intimates on the score that the *muraiki* effect should be emulated on the cello, through performance directions such as the "increasing in intensity and motion" on page 6, in Section C, measure 30.

It is possible to produce the inharmonicity of *muraiki* on a cello, most obviously by forcefully driving into the frog of the bow on an up-bow, and this effect could be further enhanced by playing *sul ponticello* (near the bridge). As discussed in the previous chapter and in Chapter 4, the inharmonicity of *muraiki* is an effect desirable on other Japanese instruments, such as the plucked lutes known as the biwa and shamisen, where it is known as *sawari*. Given that the cello is, like the lutes, also a string instrument, the lute *sawari* is closer to the cello than the flute *muraiki*, therefore I refer to *muraiki* on the cello as *sawari* (G10); naming this as *sawari* is also more succinct than constantly referring to cello *muraiki* and avoids confusion.

Regan's final performance direction covers pitches that are to be played in the *ō-meri* (large *meri*) position (G18), in which the head is significantly lowered, and with the caveat that the pitches should not be produced via usual fingerings. These pitches are circled in the score with a corresponding fingering indicated above the score. Producing a pitch using *o-meri* with designated fingerings, rather than with standard fingerings, will result in a different timbre, which is another means by which timbral movement is effected in the work. As with the previous approximate markings, the *ō-meri* fingerings are not gestures per se, not least because they would be difficult to identify as such by a listener when played in isolation, compared to the addition of *vibrato* onto a note.

However, they assume significance within their context of a tone within a phrase. The *ō-meri* pitches are only used for shakuhachi and infrequently at that. They are

used within a short sequence and it is their subtle intervallic and timbral relationships to the tones around them which defines them as a gesture, or rather, it is the transformation to and from them that is significant. The intervals produced between an *ō-meri* pitch and its preceding and succeeding notes may not be a diatonic or chromatic equal-tempered norm – and why should they be? However, within the equal-tempered environment of this work, using non-equal-tempered intervals gives a distinct sound, and the infrequent application of that sound defines the sequence in which they are emplaced as a gesture.

Other shakuhachi gestures not listed in the performance directions are trills (G17) and grace notes (G1), which are notated using staff notation conventions. Standard trills are not used in traditional shakuhachi repertoire; *koro* is the norm for such ornaments. After all, *koro* is a trill with extra pitches derived from purposeful latency between the finger gestures. Nonetheless, Regan specifies one iteration of a standard trill for the shakuhachi, during the shakuhachi solo in Section E, measure 41, and this use of the western-style trill is one example of cross-cultural influences in the work.

The approach taken by Regan in his use of grace notes (G1) also represents a cross-cultural influence. As mentioned in the discussion of Seki's gestures in the *O Gloriosa Domina* improvisation, notes are repeated on the shakuhachi by rapidly opening and closing a finger-hole. This quick physical gesture, known as *atari*,[250] gives a musical gesture of a quick in-between grace note (Lependorf 1989:237). However, this resultant grace note would not have a pitch indicated in traditional tablature, nor would it be necessary to do so; the barely articulated pitch is secondary consequence of the primary physical gesture and the fingering on the particular length of the flute. The shakuhachi player will have been taught a particular finger–hole to lift according to the repeated pitch and the style of their *ryū*. The tablature may also indicate which finger the musician is to raise, and this in combination with the length of the flute will give the grace note pitch.

[250] See Chapter 6, §6.3.

However, as Lependorf notes (1989:237–238) conventional grace notes may be used with the assumption that the pitch of these will be more clearly articulated, and this is the approach Regan has taken. While conventional grace notes may be used, they are not common in traditional shakuhachi repertoire. Therefore, to have the pitch of the grace note specified in a score as Regan has done adds a distinct hybrid shakuhachi-western gesture to the phrase, as a typical shakuhachi technique has been adapted into a western score format as part of a melodic motif – and he reserves this gesture primarily for the shakuhachi in the composition, but more of that later.

With the exception of the *portamento* slide and *niente*, most of the additional notation gestures discussed above refer to the shakuhachi. There are further gestures represented in standard notation which reference specific cello techniques. These include double-stopping (G12), standard, right-hand *pizzicato* (G11), accents (G13), *tenuto* (G14), and harmonics (G16), all of which bring distinct timbres to bear. The *pizzicato* (G11) used in this work is standard, although there are many different types of *pizzicato* available to a cellist, with different timbral effects, including left hand *pizzicato* and *Bartók pizzicato* (a.k.a. *snap pizzicato* – a very forceful right-hand *pizzicato*).

Double stopping (G12) may seem a less obvious candidate for timbral variation, however in the context of the work, the double-stops are accentuated with a corresponding increase in force and dynamics. Accents (G13) result from stronger force being exerted on the bow, and generally sound with a degree of inharmonicity relative to the force exerted. In the cello voice, the accent is often applied to grace notes, giving a similar effect to the opening of many shakuhachi works in which a short grace note leads up to a sustained tone with or without *muraiki*.

Tenuto (G14), meanwhile, is the deliberate articulation of the full durational value of the note and so can sound like an extended accent. As a gesture, *sawari* (G10) is a similar timbral effect to *muraiki*, but is associated with plucked string instruments, so is stronger and more inharmonic than an accent. *Sawari* is not

notated; Hisatake either adds it at her discretion or through following written instructions from Regan, "increasing in intensity" (Regan 2008:5). In the context of a bowed instrument, the inharmonicity of *sawari* is most obviously achieved through driving an up-bow into the string, with extra pressure toward the end of a sustained note.

In addition to such subtleties of timbre in bow-stroke, the cellist has been given considerable freedom of interpretation in this work, inasmuch as through the bowings and fingerings that the cellist chooses to use. In terms of basic bowing technique, a cellist can bow a down-bow or an up-bow. Of the two, a down-bow is stronger, louder, and can have more force applied to it, whereas an up-bow, starting from the far tip of the bow from the hand, is weaker, smoother and quieter with less inharmonicity. In a standard staff notation work, with time signatures and barlines, the cellist conventionally bows a down-bow on the first beat of the bar and an up-bow on the weak beats of the bar, or follows the bowing directions given.

There are no such bowing directions in the score, so the cellist must choose in which direction they are to bow, although convention would still suggest a down-bow as the default starting position, and indeed this seems to be the case for the most part. If the final tone of the phrase is to be played *niente* (G3), it is important to ensure that the bowing pattern of the phrase enables the final tone to be played down-bow. *Niente*, the opposite of *sawari*, is a direction indicating that the sound of the instrument should diminish into silence and on a cello this is most easily achieved with an down-bow as the bow lightens towards its tip and can naturally and easily fade into silence.

The other key point for cello interpretation is that of fingering. As with the shakuhachi, the same pitch can be played in different ways on the cello, primarily through positions along the length of different strings, known as *bariolage*, and also through position of bow between the fingerboard and the bridge; playing *sul ponticello* (near the bridge) will give a harsher, louder timbre, whereas *sul tasto* (near or over the fingerboard) will give a softer, quieter timbre. For the most part

in this work, it is possible to play most phrases using a variety of fingerings and positions, however in practice the context will suggest which is the most effective fingering to use for musical effect and efficient fluency of play.

As mentioned in the performance directions, the metre is designed to evoke the "ebb and flow" of human breath (Regan 2008). In this respect, the overall cello effect evokes human breath through melodic phrasing and through timbral shading and resonance. While much of the timbral shading phrasing will be achieved through bowing gestures, the fingering positions used will also contribute toward realising resonance potential. While these discussions of bowing and fingering are not primarily about gesture in *Forest Whispers…*(2008), they are indicative of the means by which the cello can evoke subtleties of timbre throughout the work and serve as a base from which the gestures are gestured.

7.4.2 The gestural overview.

All of the gestures listed and discussed above are presented in the gestural overview, which covers the score of the composition and the recording of the composition by Seizan Sakata and Asako Hisatake, released by Navona Records in 2011 on the album *Forest Whispers… Selected work for Japanese instruments, Vol.1* by Marty Regan. The gestural overview is represented in the text in sections, with the gestural overview of each section and a key of gestures located with the corresponding discussion. Each gestural overview of a section indicates the section, measures, and corresponding page in the score as well as the pertinent timings on the Sakata and Hisatake recording supplied on CD 2, track 4; the timings were calculated from iTunes version 12.0.1.26.

Many of the phrases begin with a quaver rest in the notation, which often follows a breath mark pause at the end of the previous phrase. As this work is designed to be ametrical with a metre based on the "ebb and flow" of human breath, I have taken these quaver rests to indicate a brief pause of variable duration rather than a strict metrical count of a quaver. As it is not practical to impart a timing break in the middle of an ametrical pause, I have calibrated the timings to coincide with the first sounded note of the phrase, rather than the rest.

Within the gestural key supplied with each section overview, all the gestures are listed and are for both instruments unless otherwise specified; if a gesture appears with a post-positional (sha), the gesture is for shakuhachi only. Likewise gestures listed as (vc) are for cello only. For the purposes of discussion in the analysis, I will generally refer to measures rather than phrases as the measures are indicated on the score and the phrasing pattern of the composition is generally one phrase per measure. If a phrase is longer or shorter than a measure, this will be clarified where necessary. As the composition is relatively long it is impractical to include the entire score in the text. Instead, short examples from the score are represented in the text, while the full score and the gestural overview are on CD 1, tracks 9 and 10.

7.5 Analysis of gestures, gestural rhythm, and trajectory

7.5.1 The opening section for solo shakuhachi: measures – (0:00–2:02), score pp. 1–2

In this section we see the introduction of a key melodic motif and many of the shakuhachi gestures used throughout the composition. Within the section itself, the gestures are used to create a gestural rhythm for each phrase, which in turn engenders a gestural trajectory for the section. The trajectory is created through the gradual expansion and contraction of different gestural rhythms, firstly through the accretion in the numbers of different gestures used and secondly, by the musical choice of gestures and their emplacement within the music. After all, not all gestures are equal in terms of their acoustic attributes and thus their musical effect; some carry more of a musical punch than others. Furthermore, some of these gestures can and do transform their intensity over time; the breathy effect of *muraiki* is one such.

The gestural trajectory of the opening section expands through the gestural rhythms of measures 1 to 3, peaks in measures 4 and 5 and contracts in measures 7 and 8, which roughly correlates with the melodic development. The core melodic motif, which forms the basis of much melodic development throughout the work, is introduced in measure 1, then is increasingly extended in measures 2 and 3, before Regan introduces new melodic material in measures 4 and 5. Following this development, Regan reprises his opening motif in measure 6 on a second tone centre, which is retained through the closing sequences of measures 7 and 8 in preparation for the entry of the cello.

Table 7.3 Gestural overview of Marty Regan's *Forest Whispers...* (2008) for shakuhachi and cello.

Opening section. Measures: 1-8. Timing: 0:00-2:02. Score: pp.1- 2

Measure:	**1**	**2**	**3**	**4**
Timing:	0:00-0:12	0:12-0:26	0:26-0:41	0:42-0:58
Shakuhachi:	**G1, G2, G3, G6, G15**	**G1, G2, G3, G4, G5, G6, G15**	**G1, G2, G3, G4, G5, G6, G7, G15**	**G1,G2,G3,G4, G6, G8, G18**

Measure:	**5**	**6**	**7**	**8**
Timing:	0:59-1:14	1:15-1:26	1:26-1:44	1:44-2:02
Shakuhachi:	**G1, G3, G5, G6, G7, G8**	**G1, G6, G8, G9**	**G1, G2, G4, G6, G8, G9**	**G1, G5, G6**

Section A Measures: 9-16 Timing: 2:02-4:08 Score pp.2-4

Measure:	**9**	**10**	**11**	**12**
Timing:	2:02-2:13	2:14-2:29	2:30-2:43	2:44-3:03
Cello:	**G3, G6, G15**	**G1, G3, G6, G15**	**G1, G2, G6, G10, G15**	**G1, G2, G3, G6, G10**
Shakuhachi:	**G6**			

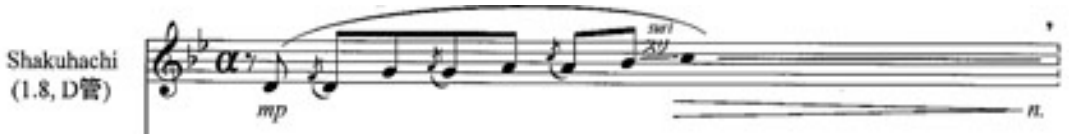
Measure:	**13**	**14**	**15**	**16**
Timing:	3:04-3:22	3:23-3:39	3:40-3:56	3:57-4:07
Cello:	**G1, G3, G6, G10**	**G1, G6, G13, G16**	**G1, G2, G6**	**G1, G6**

Key to gestures:	**G5:** *furikiri* (sha)	**G10:** *sawari* (vc)	**G15:** ascending melodic motif
G1: grace notes	**G6:** *vibrato*	**G11:** *pizzicato* (vc)	**G16:** trill
G2: slide	**G7:** *koro* (sha)	**G12:** double-stops (vc)	**G17:** harmonics
G3: *niente*	**G8:** *muraiki* (sha)	**G13:** accent (vc)	**G18:** *ō-meri* (sha)
G4: *glissando* (sha)	**G9:** *sorane* (sha)	**G14:** *tenuto* (vc)	

7.5.1.1 Measure 1 (0:00–0:12), p. 1

In the first measure of the solo shakuhachi opening section, Regan introduces the key melodic motif (G15) that recurs throughout the work and provides the basis for much of the melodic and gestural development within the section. This principle melodic motif is the following ascending sequence D-D-G-G-A-A-B♭-C, however the gestural additions are specific to the shakuhachi:

Example 7.1: The ascending melodic motif (gesture 15, measure 1)



(Regan 2008:1)

The gestural rhythm of this opening motif (G15) on the shakuhachi comprises three gestures: grace notes (G1) used between note repetitions, *suri*[251] (a slide) (G2) used between the final two tones of the ascent, and a *niente* (G3) on the sustained closing tone of the phrase. The final gesture, *niente* (G3), is not uniformly applied to every phrase, and is thus much more akin to usual practice, in contrast to Seki's uniform structural use of *niente* in his *O Gloriosa Domina* improvisation discussed in Chapter 5. Overall, the phrase of this measure outlines a key melodic motif (G15), with three relatively low intensity shakuhachi gestures giving a low gestural rhythm to this phrase.

7.5.1.2 Measures 2–3 (0:12–0:41), p. 1

In the second measure, Regan extends the melodic motif and expands the gestural rhythm from the first phrase. He repeats the ascending melodic motif (G15) up to the C with the grace note (G1) and *suri* (G2) gestures, then develops the melody with a short, descending extension, and closing on a short *niente* (G3) A. During the descent, *glissando* (G4) and grace note (G1) gestures are added, and a *furikiri* (*nayashi*) (G5) down-up *portamento* gesture is added to the final *niente* A. With the

[251] Here, *suri* (G2) is an upward *portamento,* otherwise known as *suri-age* – see Chapter 4, §4.4.2.

addition of these new *glissando* and *furikiri* gestures and the increased use of the grace note (G1) gesture during the melodic extension, Regan has not only developed the melody in this second phrase, but has also expanded the gestural rhythm from the low three-gesture rhythm of the first phrase.

In the third measure, Regan develops both the melody and the phrasal gestural rhythm further with melodic embellishment added to the ascending motif, and the respective addition of the *koro* (G7) gesture and *furikiri* (G5) to the onset and offset of the final D tone. As before, the ascent of the key melodic motif moves into *suri* (G2). This time, the *suri* is from C to D, rather than the previous iterations between B and C, and the octave D is the final tone of the phrase, which is emphasized through a transformation into the brief *koro* (G7), then is sustained and closed with the *furikiri* (G5).

No fingerings are indicated on the score for the *suri* (G2) from C to D across the break–point of the scale; the performer will use whichever is the most expedient. Furthermore, the shakuhachi performer, Seizan Sakata, adds unnotated *muraiki* (G8) to both the *suri* (G2) and to the final sustained *niente* (G3) D, on which his *muraiki* expands and contracts in intensity, adding further impetus to the gestural rhythm of the phrase. This expanding gestural rhythm and trajectory is carried through to the next phrase, with the increased momentum emphasized by the brevity of the pause between the phrases.

7.5.1.3 Measures 4–5 (0:42–1.14), p. 1

Following on from the increased gestural and melodic activity of third phrase, the fourth measure sees the first significant melodic development away from the ascending motif. The expansion of the gestural trajectory is continued with an abundance of timbral and microtonal gestures throughout the phrase: grace notes (G1), *suri* (G2), *glissando* (G4), an *ō-meri* tone (G18) and unnotated *muraiki* (G8), in addition to a notated *muraiki* (G8) finish. This closing *muraiki* opens quietly with less inharmonicity and expands throughout the tone with an increase in inharmonicity and loudness to a *forte* close, which is a more unusual direction for *muraiki*.

As *muraiki* is commonly used on the opening notes of phrases in shakuhachi *honkyoku*, the direction of the timbral and dynamic transformation is associated with attack to the note and is more likely to open strongly, then contract, rather than the reverse direction of Regan's closing tone. This inverse articulation of *muraiki* further expands the gestural rhythm of the phrase as the inharmonic, *forte* close carries a strong musical punch and for those familiar with *honkyoku* is a noticeable deviation from the norm.

This expanding gestural rhythm is carried over to the fifth phrase with further high intensity gestural activity. The phrase opens with specific fingerings for grace notes (G1), which are attached to a briefly sustained tone in the upper register of the instrument. This sequence of grace note-sustained tone is repeated with a gradual acceleration of tempo until a transformation into the higher intensity of the *koro* (G7) gesture is achieved. The *koro* closes on D, which is briefly sustained and emphasized with a *furikiri* (G5).

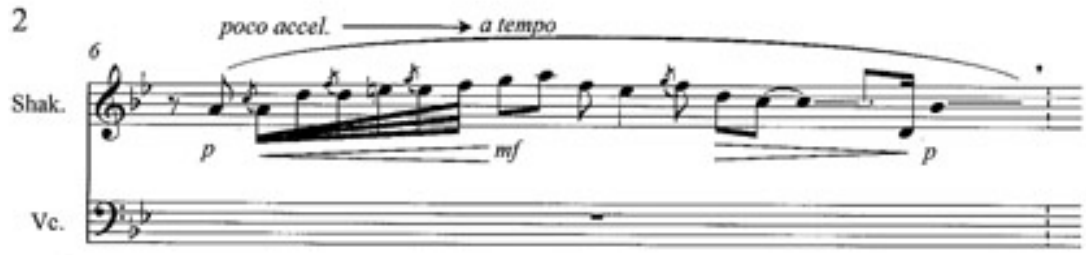
In contrast to the gestural peak of this phrase the melodic ambitus is considerably more limited. As the melody centres around a higher register and continues the development of the previous phrase, this emphasizes both the gestural and melodic effect and prepares the melodic ground for a transposition to the second tone centre of A in the next phrase. While the melodic direction is a registral development and contributes to the movement of the phrase, gestural activity is the primary generator of momentum in this measure.

7.5.1.4 Measure 6 (1:15–1.26), p. 2

From the high gestural rhythm of the previous phrase, the shakuhachi contracts the gestural rhythm with the sole use of grace notes (G1), while the opening ascending melodic motif (G15) is reprised from the second tone centre of A. This phrase with its ascending motif and descent to which an extension is added is subsequently repeated in the cello solo of Section A and is also used to open Section B. The phrase comprises the opening ascending melodic motif, which is

continued up the full octave and combined with a return descent to the tone centre, followed by an interval leap of a sixth:

Example 7.2: Melodic motif and descending extension (measure 6)



(Regan 2008:6)

Although this shift of tone centre from D to A in this section would conventionally be described as a move to the dominant, I am avoiding the use of this term so as to steer clear of associated western art music assumptions of harmonic structures; instead I refer to tone centres. This move to A signals a tone centre development which is carried over to Section A for solo cello. From the end of this phrase in measure 6, the shakuhachi moves into closing phrases in measures 7 and 8, with a reduction in gestural use and a corresponding contraction of gestural rhythm and melodic impetus.

7.5.1.5 Measures 7–8 (1:26–1:44), p. 2

In measure 7, the shakuhachi has two short phrases with a low gestural rhythm. The first short phrase of measure 7 includes a *glissando* (G4) and grace note (G1) prior to the final sustained G, while the second phrase includes a grace note on the opening restatement of the D tone centre, and the phrase closes with a *suri* (G2) on A up to B. From here, the shakuhachi moves into measure 8 and the final two phrases of this section. Regan opens the first phrase of measure with a grace note triplet (B–C–D) followed by a short descending melodic sequence from B to E, before moving to a grace note articulation of a sustained A, which closes with *furikiri* (G5). The grace note A is repeated, signalling the close of this phrase and section. Regan reinforces the move to A through a final short phrase of a grace note gesture to a sustained D, which moves to a sustained E. Over the sustained shakuhachi E, the cello enters with a reprise of the opening melodic motif of the shakuhachi, and this entry marks the start of the second section, Section A.

As we have seen, the gestural trajectory throughout the section broadly follows the contours of the melodic development. There is a gradual increase in the types of gestures used and in their frequency and dissemination through measures 2, 3, 4, and 5, contiguous with the embellishment of the ascending melodic motif in measures 2 and 3, and development in measures 4 and 5. The reprise of the melodic motif in measure 6 corresponds with a decrease in gestural trajectory, which is continued with the closing phrases of the section in measures 7 and 8.

7.5.2 Section A for solo cello: measures 9–16 (2:02–4:08), score pp. 2–4

Much of this section reprises the shape of the melodic development and overall gestural trajectory in the opening shakuhachi section, however Regan continues the reprise from the second tone centre of A, which was established in measure 6 of the shakuhachi section. In the first three measures (9–11), the cello imitates the melodic development of the first three shakuhachi measures (1–3), although the gestural rhythm is noticeably lower in these phrases than in those of the shakuhachi section, even though the overall gestural trajectory of the section follows the same pattern of expansion.

Likewise, the melodic developments of measures 4–8 from the shakuhachi section correspond to the melodic development of cello measures 12–16. As with measures 9–11, the cello continues with a lower expansion and contraction of gestural trajectory, emanating from the gestural rhythms of the phrases. While the shape of the overall gestural trajectory is mimetic, the lower rhythms emerge from the type, frequency, and location of gestures used. These subtle gestural differences, combined with the shift of tonal centre, provide the listener with the sense of movement and difference in the shape and momentum of the music. As the tone centre shift has only taken the melody to a fifth lower than the shakuhachi, the musical affect is of two instruments close in register and thus sharing a close registral space, rather than the wider registral distinctions subsequently exploited in the work.

7.5.2.1 Measure 9 (2:02–2:13), p. 2

As aforementioned, the melodic shape of this opening cello phrase is a mimetic reprise of the opening melodic motif of the shakuhachi in measure 1 (D–D–G–G–A–A–B♭–C), with an ascending melodic sequence of A–A–D–D–E♮–E♮–F–G. Aside from this melodic pitch substitution, we also have the lower gestural rhythms of the cello voice, mentioned above. In the shakuhachi voice, the note repetitions are articulated with a grace note (G1) and *suri* (G2) is used towards the end of the melodic ascent (G15). By contrast neither of these gestures are used in the cello voice. As grace notes are a standard technique and slides are widely used on the cello, their absence is a deliberate compositional choice that evokes the sense of the cello as an echo of the shakuhachi, rather than a direct mimesis. Effectively, this phrase contains no gestures bar the closing amodal mimetic gesture of the shakuhachi phrase; the cello closes with a *diminuendo* to *niente* (G3) on a sustained tone, thus providing a sense of gestural rhythm continuity between the two voices. In this sense, it also perhaps suggests the stillness of much shakuhachi *honkyoku*.

7.5.2.2 Measures 10–11 (2:14–2:43), pp. 2–3

This measure mimics the melody and dynamics of the second shakuhachi measure in the opening section, while continuing to expand the lower gestural trajectory from the low gestural rhythm of phrase 9. In the second shakuhachi measure of the opening section, the shakuhachi uses grace notes (G1) on the ascending motif (G15) and adds a further grace note (G1) and a *glissando* (G4) to the phrasal extension. By contrast, the cello does not employ either of these gestures during the ascending motif, nor is a *glissando* used in the phrasal extension, although the gestural rhythm of the cello phrase expands with the addition of a single grace note (G1) preceding the final *niente* (G3) tone of the phrase, giving the phrase a higher gestural rhythm than that of phrase 9. As *glissandi* and grace notes are eminently feasible on the cello, the choice not to use them is deliberate, which further evokes the effect of the cello as an echo of the shakuhachi.

Likewise for cello measure 11, the overall melodic and rhythmic shape of shakuhachi measure 3 is repeated, however in this phrase the gestural trajectory increases with an expansion in the gestural rhythm, similar to the pattern of

trajectory expansion in measure 3 of the shakuhachi opening section. To recap, in measure 3 the shakuhachi employs grace notes (G1) and a *suri* (G2), to which Sakata adds an unnotated *muraiki* (G8) gesture, which is followed by a *koro* (G7), then a sustained D, with a *crescendo-diminuendo* pattern to a *niente* close. By contrast, the cello phrase employs the ascending melodic motif (G15) without grace notes. By contrast, Regan adds a *portamento* (G2) between G and A, and a grace note (G1) in place of the shakuhachi *koro*, before a final A is sustained to a *crescendo* close.

The use of a grace note (G1) with its lower gestural impetus, rather than the higher intensity of the *koro* (G7) gesture again evokes the echoic sense of the cello voice. A *koro* style *tremolo* could be performed on the cello if desired, but would probably not produce the same kind of timbral and frequency differentiation as that of *koro* on the shakuhachi. Furthermore, as Regan's cello voice is an echo of the shakuhachi, rather than a mirror image, and *koro* is a more forceful gesture than a single grace note, giving the cello a grace note fits the muted gestural rhythm of the cello voice. While the gestural rhythm is lower than the shakuhachi, the cellist, Asako Hisatake, further expands the gestural rhythms with the addition of a further unnotated *sawari* (G10) to her *portamento*, thus employing amodal mimesis of the shakuhachi *suri* gesture with *muraiki*. Following the *portamento* to A, the cello reiterates the closing A with a grace note (G1), and closes the phrase with a *crescendo*, which stands in dynamic contrast to the close of the shakuhachi third measure on *niente*.

7.5.2.3 Measure 12 (2:43–3:03), p. 3

Measure 12 of the cello voice echoes the melodic shape of shakuhachi measure 4, albeit with a grace note (G1) pair at the start of the phrase as opposed to a grace note triplet, and with a melodic variation in the semiquaver sequence toward the end of the phrasal ascent. The shakuhachi has a semiquaver pattern of B♭–A–B♭–C, in contrast to the cello pattern of F–A–F–C, with a descent of a sixth from the F to the A, which adds impetus to the phrasal momentum. The shakuhachi has a *suri* (G2) with *muraiki* (G8) and increased dynamics to *forte* on the closing D to E; the cellist has a mimetic *portamento* (G2) from A to B and a corresponding dynamic

increase. Although there are gestural differences between the two instruments, the expansion of gestural rhythm is mimetic with an echo of similar gestures in the cello voice.

7.5.2.4 Measure 13 (3:04–3:22), p. 3

The expansion in gestural rhythm and corresponding increase in gestural trajectory is carried over to the next cello phrase in measure 13 on the cello and echoes the gestural expansion of measure 5 on the shakuhachi, albeit with a lower gestural rhythm. In addition to the emulation of gestural trajectory, the cello phrase echoes the melodic development of the shakuhachi phrase. In the shakuhachi measure 5, the gestures of the phrase open with a pair of grace notes (G1) onto a sustained G, then a second pair of grace notes before an E♭ to a sustained D.

In addition, the shakuhachi grace notes are indicated with particular fingerings, which give distinct timbral colours to the pitches, however as they are so brief, their timbral impact will be subtle. In the corresponding cello measure 13, the cello has one pair of grace notes (G1), followed by a sustained tone, then a brief descent to C before rising to a sustained B♭; specific fingerings are not indicated for the cello voice – the choice is left to the cellist.

Although both the shakuhachi and the cello phrases (measures 5 and 13 respectively) use grace notes, the minimal use of the gesture in the cello phrase, compared to that of the shakuhachi, gives a lower gestural rhythm to the cello voice than that of the shakuhachi phrase. In the second half of the shakuhachi phrase, the shakuhachi has an accelerating sequence of repeating grace note-pitch pairs which segues into a *koro* (G7), followed by a sustained D, which opens with *furikiri* (G5) and finishes with *niente* (G3). By comparison, the cello has a short melodic sequence with no other gestures bar a *niente* finish (G3), thus the phrase has a low gestural rhythm.

7.5.2.5 Measures 14–16 (3:23–4:07), pp. 3–4

In measure 14, the cello reprises the ascending melodic motif (G15) with a contraction of the gestural trajectory, mimicking the gestural contraction and melodic reprise of the shakuhachi in measure 6, except for the pitch substitution in the cello voice. Regan introduces the sole gesture of the phrase, a grace note (G1) during the melodic descent; a significantly lower gestural rhythm than that of the previous phrase. This is followed by measures 15 and 16, the closing sequences of Section A, which both continue the low gestural trajectory of measure 14.

In the second half of measure 15, Regan introduces a slide (G2) between the final two tones, and in measure 16, grace notes (G1) precede the short descending sequence and all remaining tones in the measure, which centre around D and are mostly sustained. These sustained tones preceded by a grace note (G1) are reminiscent of shakuhachi phrasing in *honkyoku*, where they are commonly employed in the opening or closing of a work. As well as the gestural echo of shakuhachi phrasing, Regan has re-established the tone centre of D, from which the next section begins.

Throughout this section, the gestural trajectory of the cello has echoed that of the shakuhachi in the opening section with lower gestural rhythms, which have nonetheless established a shared common gestural and melodic space for the two instruments. From here, we see the first development within this common space in section B.

7.5.3 Section B for shakuhachi and cello: measures 17–26 (4:08–6:01), score pp. 4–5

This is the first section in which the shakuhachi and the cello both perform and the first significant melodic development away from the material of the opening section, although the section opens with a reprise of shakuhachi measure 6 and cello measure 14. In this section, the gestural trajectory expands and develops as shakuhachi and cello engage in more immediate melodic and gestural interaction, with much of the latter mimetic.

Table 7.4 Gestural overview of Marty Regan's *Forest Whispers...* (2008) for shakuhachi and cello.

Section B. Measures: 17-26. Timing: 4:08-6:01. Score: pp. 4-5

Measure:	**17**	**18**	**19**	**20**	**21**
Timing:	4:08-4:18	4:18-4:31	4:31-4:43	4:43-4:55	4:56-5:10
Shakuhachi:	**G1, G2, G6**	**G3**	**G6**	**G1, G4, G6**	**G1, G5, G6**
Cello:	**G3**	**G6**	**G2, G6**	**G3**	

Measure:	**22**	**23**	**24**	**25**	**26**
Timing:	5:10-5:22	5:22-5:32	5:33-5:42	5:42-5:51	5:52-6:00
Shakuhachi:	**G1, G6**	**G1, G6**	**G1, G2, G4, G8**	**G1, G2, G8**	**G1, G6**
Cello:	**G6**	**G1, G2, G6**	**G2, G3, G6, G14**	**G1, G2, G3,**	**G2, G3, G6**

Key to gestures:	**G5:** *furikiri* (sha)	**G10:** *sawari* (vc)	**G15:** ascending melodic motif
G1: grace notes	**G6:** *vibrato*	**G11:** *pizzicato* (vc)	**G16:** trill
G2: slide	**G7:** *koro* (sha)	**G12:** double-stops (vc)	**G17:** harmonics
G3: *niente*	**G8:** *muraiki* (sha)	**G13:** accent (vc)	**G18:** *ō-meri* (sha)
G4: *glissando* (sha)	**G9:** *sorane* (sha)	**G14:** *tenuto* (vc)	

7.5.3.1 Measures 17–18 (4:08–4:31), p. 4

The shakuhachi takes the opening in measure 17 with a reprise of the phrasal shape and gestural rhythm in measures 6 and 14 of the shakuhachi and cello respectively, and opens from the tone centre of D. As previously, the shakuhachi uses grace notes (G1) and *suri* (G2) in the ascending motif (G15), but not in the descent. At the close of the phrase, instead of the final sixth, Regan closes with an ascending fifth to A which is sustained to *niente* (G3) over the start of the cello phrase in measure 18. In measure 18, the cello mimics the shakuhachi melodic pattern (G15) but without the gestures and with a start from A rather than D. The cello phrase ends with an ascent of a fifth to E♭, which is sustained under the next shakuhachi entry in measure 19. Again we see the cello giving a muted gestural echo of the shakuhachi; in measure 18, the cello has no gestures bar the melodic motif (G15).

7.5.3.2 Measures 19–21 (4:31–5:10), pp. 4–5

In this measure, we have the first call and response phrase, in which the shakuhachi and the cello exchange ascending melodic sequences. The principal movement of this phrase is melodic; the gestural rhythm of the sequence is low. The shakuhachi opens with a short sequence from F to a sustained G. The cello responds, under the shakuhachi G, with a short sequence from E♮ to F. This sequence ends with a slide (G2) between a third E♮ and an F; the slide is the only gesture throughout the phrase. The cello F is sustained under the next shakuhachi entry on G with a short sequence to an A sustained over the final cello sequence from F to a G sustained under a shakuhachi C–D–B♭–F sequence.

This final F is repeated on the shakuhachi with a grace note at the start of the next measure, 20. Measures 20 and 21 are solo shakuhachi and continue on from the previous measure with sustained tones on F and G, preceded by grace notes (G1). In the second half of measure 20 the gestural rhythm begins to expand with the addition of a grace note (G1) and a *glissando* (G4) to a new phrase in the upper register. This expansion continues in measure 21 with grace notes (G1) and a closing *furikiri* (G5).

7.5.3.3 Measures 22–24 (5:10–5:42), p. 5

Measure 22 sees a repeat of the call and response pattern, again shakuhachi-cello-shakuhachi-cello. This time the sequences focus on the tone centre of D, the shakuhachi uses grace note gestures (G1) in between repeated D pitches, and each instrument gradually *crescendo*s throughout the phrase. The first call-and-response iteration ended with the shakuhachi, while this one ends with a sustained D on the cello over which the shakuhachi enters with a short ascending sequence from G to a sustained D in measure 23. Under the shakuhachi D, the cello has a grace note (G1) onto a sustained E, over this the shakuhachi reiterates D with a grace note (G1), exchanging amodal mimesis of the gestures.

Toward the end of measure 23 the gestural rhythm expands as the cello opens a sequence with an intervallic leap of a ninth from E to F. This measure finishes with a slide (G2) from F to a sustained G, which carries over to the start of measure 24. Over the cello's sustained G, the shakuhachi enters with a melodic ascent from G, which reprises most of the ascending motif of the opening sequence, bar the *suri* (G2) slide. However, Regan extends the melodic sequence and includes a *glissando* (G4) above the final A, which is sustained with *suri* (G2) up toward B♭, over a descending cello sequence in which A and B♭ are emphasized with *tenuto* (G14). This expansion of gestural rhythm is continued into the next measure.

7.5.3.4 Measures 25–26 (5:42–6:00), pp. 5–6

At the start of measure 25 in the shakuhachi voice, a *muraiki* (G8) *crescendo* is added as the B♭ is approached. This is followed by grace notes (G1) and a short melodic descent then a return to grace notes (G1) on sustained tones. Underneath the shakuhachi sustained A, the cello descends to a sustained D, with a *niente* (G3) close. In measure 26, Section B closes with a short slide (G2) on the cello from C to a sustained D with *niente* (G3), over which the shakuhachi enters with a grace note (G1) to a sustained *crescendo* D, taking us into Section C.

Throughout the final two measures of Section B, Regan has expanded the gestural rhythms of the phrases with an increase in the frequency of grace notes (G1) and slides (G20), their emplacement in higher registers. The choice and combination of

gestures such as *muraiki* (G8) with a high register *portamento* (G2) and grace notes (G1), within a short gestural phrase such as that at the start of measure 25, have also served to expand the gestural rhythms. These increases have, in turn, served to expand the gestural trajectory toward the end of the section.

7.5.4 Section C for shakuhachi and cello: measures 27–33 (6:01–7:10): score p. 6

This section and the following Section D are both shorter at about one minute each, compared to the approximate two-minute duration of the other sections. Nevertheless, there is an expansion and contraction of the gestural trajectory within the section, in line with a general increase in overall gestural trajectory and melodic development of the composition. The trajectory of the section expands through an increase of gestural rhythm in successive phrases and contracts in the final measure of the section, 33. Although the section is listed for both instruments, the shakuhachi only plays in the opening measure 27. Otherwise, the section is for solo cello and the shakuhachi returns at the start of section D.

Table 7.5 Gestural overview of Marty Regan's *Forest Whispers…* (2008) for shakuhachi and cello.

Sections C. Measures: 27-33. Timing: 6:01-7:10. Score: p. 6.

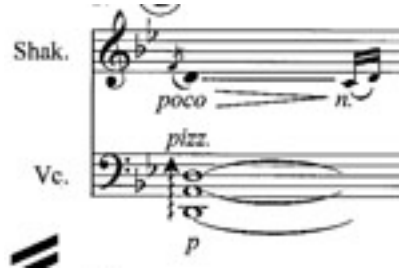
Measure:	**27**	**28**	**29**	**30**	**31**
Timing:	6:01-6:08	6:09-6:18	6:19-6:32	6:33-6:46	6:47-6:50
Shakuhachi:	**G1**				
Cello:	**G11**	**G6, G15**	**G6, G12, G13, G15**	**G2, G10**	**G6, G10, G12, G13**

Measure:	**32**	**33**
Timing:	6:51-7:01	7:02-7:09
Shakuhachi:		
Cello:	**G1, G6, G13**	**G6**

Key to gestures:	**G5:** *furikiri* (sha)	**G10:** *sawari* (vc)	**G15:** ascending melodic motif
G1: grace notes	**G6:** *vibrato*	**G11:** *pizzicato* (vc)	**G16:** trill
G2: slide	**G7:** *koro* (sha)	**G12:** double-stops (vc)	**G17:** harmonics
G3: *niente*	**G8:** *muraiki* (sha)	**G13:** accent (vc)	**G18:** *ō-meri* (sha)
G4: *glissando* (sha)	**G9:** *sorane* (sha)	**G14:** *tenuto* (vc)	

Section C opens in measure 27 with development of the gestural rhythm through the addition of a cello *pizzicato* chord (G11) under a short shakuhachi sequence of a grace note (G1) to a sustained D, ending with a grace note pair (G1):

Example 7.3: Cello *pizzicato* chord under shakuhachi tones (measure 27)



(Regan 2008:6)

From this new gesture, the cello restates the ascending melodic motif (G15) D–D–G–G–A–A–B♭–C, without grace notes, but with a C closing on *niente* (G3), giving the phrase a low gestural rhythm. The cello reprises most of this ascent in measure 29, but expands the gestural rhythm at the close of measure 30 with a sustained double stop which is a louder, more forceful gesture; the cello has a low D followed by an octave leap to the sustained double stop (G12) on D and A:

Example 7.4: Gestural emphasis of a cello double stop (measure 29)

(Regan 2008:6; cello voice only)

From here the expansion of the gestural trajectory and melodic development increase the overall momentum and intensity of the composition, in line with the performance direction atop measure 30, "increasing in intensity and motion" (Regan 2008:6). In measure 30 the cello has a series of intervallic leaps of a fifth, G–D, each of which is followed by a slide (G2) between two upper notes. The intervallic size increases with each iteration as the final note of the pair rises. In her final pair, Hisatake experiments with the notation: rather than following the notated opening of a double stop fifth (G–D), her D is a twelfth above G, which increases its salience and emphasizes the expanding gestural rhythm.

From the opening of the bar, Hisatake moves into the slides and articulates them with unnotated *sawari*. Her amodal mimesis of shakuhachi *muraiki* further increases the intensity and motion of the gestural rhythm, with each iteration. The higher gestural rhythm is maintained across measure 32, even though this measure only has combined gestures of accented (G13) grace notes (G1). Here, the grace notes precede several short E♭ iterations in a higher register in a manner evocative of shakuhachi movement, followed by a short melodic sequence to the close of the section in measure 33, in which the gestural rhythm contracts on the final sustained note. Despite the contraction of the gestural rhythm in measure 33, overall the trajectory remains at the higher intensity of section C as we move into section D.

7.5.5 Section D for shakuhachi and cello: measures 34–38 (7:10–8:22), score pp. 6–7

This section is, like section C, shorter than the other sections at just over a minute long. Unlike section C, both instruments interact with considerable gestural and melodic development, prior to the solo shakuhachi section E.

Table 7.6 Gestural overview of Marty Regan's *Forest Whispers...* (2008) for shakuhachi and cello.

Sections D. Measures: 34-38. Timing: 7:10-8:22. Score: p. 6-7.

Measure:	**34**	**35**	**36**	**37**	**38**
Timing:	7:10-7:19	7:20-7:30	7:31-7:44	7:45-8:02	8:03-8:21
Shakuhachi	**G1, G2, G6, G15**	**G1, G2, G6, G7, G8, G9**	**G1, G3, G6, G15**	**G1, G3, G8**	**G1, G3, G4, G5, G6, G8**
Cello:	**G11**		**G6, G13**	**G2, G6, G12**	**G3, G6**

Key to gestures:	**G5:** *furikiri* (sha)	**G10:** *sawari* (vc)	**G15:** ascending melodic motif
G1: grace notes	**G6:** *vibrato*	**G11:** *pizzicato* (vc)	
G2: slide	**G7:** *koro* (sha)	**G12:** double-stops (vc)	**G16:** trill
G3: *niente*	**G8:** *muraiki* (sha)	**G13:** accent (vc)	**G17:** harmonics
G4: *glissando* (sha)	**G9:** *sorane* (sha)	**G14:** *tenuto* (vc)	**G18:** *ō-meri* (sha)

7.5.5.1 Measures 34–35 (7:10–7:30), pp. 6–7

Like section C, section D opens with a cello *pizzicato* chord gesture. This time, the shakuhachi enters a beat later, rather than simultaneously, with a melodic and gestural reprise of the opening ascending melodic motif (G15) from D to C, with grace notes (G1), *suri* (G2) between the B and the C, and a C sustained with *niente* (G3). From here the shakuhachi moves into measure 35 with an expansion of gestural rhythm centred around two pitches, C and D. This phrase is very reminiscent of shakuhachi melodic movement, in which a single note is made "interesting" with the addition of gestures.

The phrase opens on D in the low octave (the base note of a 1.8 instrument) with *sorane* (G9), before rising to a C. The C is reiterated and emphasized with a D grace note (G1) and a *furikiri* opening, and is then sustained with a *suri* (G2) and unnotated *muraiki* (G8) up to D. The D is reiterated with a preceding *koro* (G7) and is sustained with *crescendo*, under which the cello enters in the next measure, while the shakuhachi *diminuendos* to *niente* (G3).

7.5.5.2 Measures 36–37 (7:31–8:02), p. 7

The shakuhachi and cello continue melodic development and a higher gestural rhythm in measures 36 and 37 with an increased use of gestures, including higher intensity gestures such as *muraiki* (G8) and double stops (G12). In the second half of measure 36, the shakuhachi reiterates the first part of the ascending motif (G15) with grace notes (G1), to a sustained D. From here the shakuhachi moves into measure 37 with a *muraiki* (G8) on a *suri* (G2) from D to a sustained E♭, over a grace note double stop (G1 and G12) to a sustained D on the cello. Throughout the remainder of measure 37, the shakuhachi has two sequences of grace notes (a triplet and a pair) onto sustained tones, over the short melodic sequence on the cello which incorporates a slide (G2).

7.5.5.3 Measure 38 (8:03–8:21), p. 7

From here, both instruments move into measure 38 with a sustained A in the cello to *niente* (G3), underneath a shakuhachi reprise of the ascending melodic motif (G15) with grace notes (G1). Although the shakuhachi is restating a well-

established motif, here the restatement is in the higher *kan* register, giving a melodic salience to the sequence in preparation for the move to the shakuhachi solo section. In the latter half of the measure there is a short pause before the final solo shakuhachi sequence. This sequence opens with an unnotated *muraiki* (G8) and includes a *glissando* (G5) prior to the close of the sequence on a sustained A. Although the final A is marked *niente* (G3), this is not a long *niente*, nor is the pause between the end of this section and the opening of Section E a long one, as the A is immediately reiterated in Section E with a preceding grace note (G1).

7.5.6 Section E for solo shakuhachi: measures 39–47 (8:22–10:12), score pp. 7–9

In this solo section we see significant melodic development away from the sequences established in the work thus far, alongside distinctive gestural expansion – this section marks the melodic and gestural peak of the work. The melodic and gestural development takes use closer to the traditional *honkyoku* space with shapes, sequences, and gestures that more closely reflect *honkyoku* idioms and other Japanese influences.

Table 7.7 Gestural overview of Marty Regan's *Forest Whispers…* (2008) for shakuhachi and cello.

Sections E. Measures: 39-47. Timing: 8:22-10:12. Score: p. 7-9.

Measure:	**39**	**40**	**41**	**42**	**43**
Timing:	8:22-8:29	8:30-8:39	8:40-8:51	8:52-9:09	9:10-9:19
Shakuhachi:	**G1, G3, G6**	**G1, G3, G5, G6**	**G1, G6, G16**	**G1, G4, G6, G8, G9, G13**	**G1, G5, G8, G15**

Measure:	**44**	**45**	**46**	**47**
Timing:	9:20-9:35	9:35-9:44	9:44-9:59	10:44-10:11
Shakuhachi:	**G1, G2, G6, G7**	**G1, G2, G4, G6 G8, G15, G18**	**G1, G2, G6, G18**	**G1, G6**

Key to gestures:	**G5:** *furikiri* (sha)	**G10:** *sawari* (vc)	**G15:** ascending
G1: grace notes	**G6:** *vibrato*	**G11:** *pizzicato* (vc)	melodic motif
G2: slide	**G7:** *koro* (sha)	**G12:** double-stops (vc)	**G16:** trill
G3: *niente*	**G8:** *muraiki* (sha)	**G13:** accent (vc)	**G17:** harmonics
G4: *glissando* (sha)	**G9:** *sorane* (sha)	**G14:** *tenuto* (vc)	**G18:** *ō-meri* (sha)

7.5.6.1 Measure 39–40 (8:22–8:39), p. 7

The section begins in measure 39 with a continuation of the closing sequence of measure 38, with a reiteration of the A via a lower grace note (G1) of G. The sustained pitch is reiterated for a third time, this time on A♭ rather than A, via a higher grace note (G1) of C. Even though the pattern of grace note-sustained pitch remains the same, interest and movement is created with the variant pitching of the grace notes and the semitone shift, as well as a *crescendo-diminuendo* dynamics pattern, which closes on *niente* (G3). From here we move into measure 40, again with a grace note opening. This time the interval between the grace note and the main pitch is a distinctively large tenth, from A♭ to C, highlighting the C a the start of a short descending sequence. The final G of measure 40 is sustained with *furikiri* (G5) and closed with *niente* (G3). Although the gestural rhythm thus far

seems low in terms of the number of gestures, the frequent use of those gestures on sustained pitches in a higher register increases their gestural salience and thus the gestural rhythm.

7.5.6.2 Measure 41–42 (8:40–9:09), p. 7

The gestural trajectory is increased further through the gestural rhythm of measure 41, which opens with a pair of grace notes (G1) to G, followed by a single F grace note (G1) to G. The pairing of F (G1) to G is repeated with increasing speed until Sakata segues into a western-style trill (G16). This is the only instance in the work in which a western style trill is employed; as was mentioned in the introduction, this style of trill is not used in traditional shakuhachi music. *Koro* is more likely in traditional repertoire and we have already seen iterations of *koro* in this composition, in measures 3, 5, and 35, thus the use of a trill is gesturally significant within the musical development of the work and is also an indicator of cross-cultural referencing.

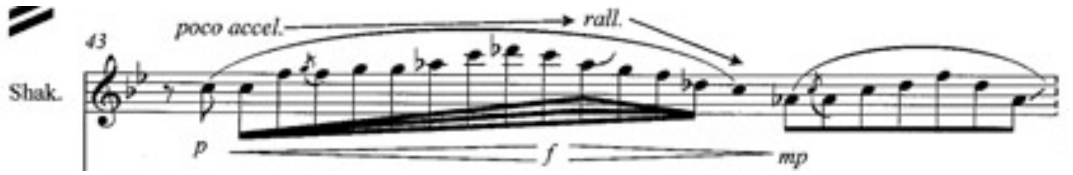
The gestural sequence in this measure of grace note (G1) to tone, *koro* (G7), then trill (G16), and to have all of these in a high register, gives an expanding gestural rhythm to the phrase. Furthermore, the location of this high gestural rhythm of the phrase at the start of this solo section suggests a peak of musical development and gestural trajectory. This peak is continued into the next measure (42). The measure opens with a brief descent to a low A with *sorane* (G9), emphasizing the subsequent return to the high register, which is articulated with repetitions of pairs of *ō-meri* (G18) grace notes (G1) and tones, and ends with a *glissando* (G4). The use of the *ō-meri* fingerings adds further impetus both to the evocation of Japanese musical space and to the gestural trajectory because these fingerings will generate intervals that may diverge from equal-temperament, as well as having subtle but distinct timbres.

7.5.6.3 Measure 43 (9:10–9:19), p. 7

The higher gestural rhythm of phrase 42 is succeeded by a phrase low in gestural rhythm but high in melodic salience. Measure 43 opens with a partial reprise of

the ascending melodic motif (G15), which transforms into a melodic extension very reminiscent of the Japanese *miyako-bushi* scale:

Example 7.5: Cross-cultural influences in melodic style (measure 43)



(Regan 2008:8)

The opening of the phrase, C-C-F-F-G-G, is an identical intervallic shape to the gestural motif (G15). From G the intervallic structure deviates to the semitonal structure of the *miyako-bushi* (urban melody) tetrachord: G-A♭-C, which is widely used in traditional shakuhachi music – the intervallic pattern rather than the pitches.

The identifying feature of these tetrachords is their internal intervallic structure denoted by the position of the infix; thus, the defining feature of the *miyako-bushi* scale is its use of a semitone-major third internal interval structure such as that illustrated below (the C start has been used as a convenience to illustrate the model):

Example 7.6: The *miyako-bushi* scale

(Koizumi 1977:77)

Looking at the scale we see a combination of two disjunct tetrachords. Each of these tetrachords has a single infix indicated by the black note, and follows the same intervallic pattern of a semitone and a major third. In practice, music would include other pitches; this scale is descriptive of the fundamental building blocks used in much traditional shakuhachi music, rather than prescriptive of all the pitches used in it all of the time.

Returning to Regan's measure 43 in *Forest Whispers…* (2008), the extension from the G of the ascending sequence follows the *miyako-bushi* tetrachord pattern: G-A♭-C. The D♭ at the peak of the sequence (G-A♭-C-D♭) adds further impetus to the *miyako-bushi* evocation; as mentioned, the scale is a description rather than a rule. In practice, other tones are added. Furthermore, it is possible to combine tetrachords conjunctly rather than disjunctly. In a conjunct pair, the second tetrachord starts on the finishing note of the first tetrachord (for example C-F-F-B♭), rather than the adjacent tone (for example C-F-G-C), therefore the conjunct pair would have a scale pattern of C-D♭-F-F-G♭-B♭, or if we start on the G from Regan's melodic sequence: G-A♭-C-C-D♭-G, thus giving the G-A♭-C-D♭ of the *miyako-bushi* scale.

When I asked Marty Regan if he had deliberately chosen to reference the *miyako-bushi* scale he refuted the suggestion. Although he did not explicitly reference this scale in his composition, the intervallic shape is nonetheless highly suggestive of the *miyako-bushi* scale*.* Furthermore, as this is the only such melodic pattern in the composition, it is melodically salient, and could perhaps count as a gesture evoking traditional Japanese music in its own right, even though it was not an explicit choice on the part of the composer.

A further noticeable feature in the articulation of this sequence is the relative absence of grace notes (G1). Most iterations of the ascending motif (G15) in the shakuhachi voice have included grace notes as a means by which pitch repetition is differentiated and which also serves to distinguish the shakuhachi articulation of the motif from the cello voice (register and timbre aside). By contrast, a sole grace note is used between the second pair of repeated pitches in the ascending sequence; neither the opening pair (C–C) nor the third pair of repeated pitches (G–G) in this sequence have a grace note separating them.

The gesture is noticeable by its absence – on the score. In performance, Seizan uses *atari*, the quick, barely noticeable "blip" above or below the tone (Lependorf 1989:237), too quick for a grace note. The only other gesture in the sequence is a *glissando* (G4) used during the descent to C. This distinctive melodic sequence is

followed by a shorter ascending-descending sequence, reiterating the A♭ of the previous sequence with a start and finish on said pitch. Like the previous sequence, this sequence is articulated with a sole grace note (G1) and a *glissando* (G4) up to C at the start of the next measure.

7.5.6.4 Measures 44–45 (9:20–9:35), p. 7

Measure 44 opens with a sustained C which moves to D via *koro* (G7). This is followed by two short sequences reiterating the C and D with grace notes (G1). The second sequence closes with a short *suri* (G2) to E♭. From here we return to an ascending-descending melodic pattern in measure 45, which as before is augmented with a sole grace note (G1), here between the first two notes, and a *glissando* (G4) prior to the final sustained D. From the D we move to a grace note pair (G1) opening a short sequence of E♭–D–E♭–F–G. Although this sequence is short, it has a high gestural rhythm, with the opening grace notes (G1), the closing *suri* (G2) into measure 46, and unnotated *muraiki* (G8) as well as an instruction to play the D *ō-meri* (G18), giving a subtly different interval and timbre between the D and its preceding and succeeding E♭pitches. This sound-effect may only subtly impinge upon the listener, but again references a musical space closer to the origins of the shakuhachi.

7.5.6.5 Measures 46–47 (9:49–9:59), p. 8

This higher gestural rhythm and closer relationship with the roots of the shakuhachi are carried through to measure 46 by the opening sequence of grace notes (G1) onto sustained pitches in the high register, which is augmented with *muraiki* (G8). Furthermore, the second grace note iteration is of a grace note pair including the '*ū*/*ou*' traditional *meri* tone, which has a subtle effect that nonetheless, as G18, contributes to the musical affect. These short sequences finish on a sustained A diminishing to *niente* (G3).

From here, Regan reprises the first part of the opening ascending melodic motif (G15), complete with grace notes (G1) and *suri* (G2) in preparation for a return to the imitative melodic and gestural shared space of the shakuhachi and cello. He moves into the closing measure of Section E with a short melodic descent,

preceded by grace notes (G1) and finishing on a sustained A, which closes on *furikiri* (G5). The gestural rhythm is contracted to single grace notes (G1) on a sustained A, although even here gestural rhythm generates tension and emphasis as Regan's two reiterations of the A are preceded by a different pitch of grace note (G1). The section closes with the A sustained to *niente* (G3) over the entry of the cello in Section F.

The gestural trajectory for this section began at a high level, then contracts during the melodic salience of measure 43 before expanding again through measures 44 to 46, prior to a reduction of gestural rhythm in the closing measure 47, as the shakuhachi reduces its development in preparation for the return to familiar melodic and gestural territory in section F.

7.5.7 Section F for shakuhachi and cello: measures 48–57 (10:12–12:17), score pp. 9–11

Although this section reprises the familiar territory of Section B, it does so with the melodic role of the instruments reversed, while their gestural roles are retained. This gives a continuity of gestural trajectory from the previous section B, whilst also retaining the higher gestural impetus explored by the shakuhachi in Section E.

Table 7.8 Gestural overview of Marty Regan's *Forest Whispers…* (2008) for shakuhachi and cello.

Section F. Measures: 48-57. Timing: 10:12-12:17. Score: pp. 9-11

Measure:	**48**	**49**	**50**	**51**	**52**
Timing:	10:12-10:25	10:26-10:37	10:38-10:49	10:50-11:03	11:03-11:18
Shakuhachi:	**G3, G6**	**G1, G2, G6, G15**	**G2, G6**	**G6**	
Cello:	**G5**	**G3**	**G6**	**G1**	**G1**

Measure:	**53**	**54**	**55**	**56**	**57**
Timing:	11:19-11:31	11:32-11:45	11:46-11:54	11:54-12:10	12:10-12:16
Shakuhachi:	**G1, G6**	**G1, G2, G3, G8,**	**G2, G3, G4, G6**	**G3, G6**	**G2, G6**
Cello:	**G1, G6**	**G1**	**G1, G2, G6**	**G1, G2, G6, G12**	**G3, G6**

Key to gestures:	**G5:** *furikiri* (sha)	**G10:** *sawari* (vc)	**G15:** ascending melodic motif
G1: grace notes	**G6:** *vibrato*	**G11:** *pizzicato* (vc)	
G2: slide	**G7:** *koro* (sha)	**G12:** double-stops (vc)	**G16:** trill
G3: *niente*	**G8:** *muraiki* (sha)	**G13:** accent (vc)	**G17:** harmonics
G4: *glissando* (sha)	**G9:** *sorane* (sha)	**G14:** *tenuto* (vc)	**G18:** *ō-meri* (sha)

7.5.7.1 Measures 48–50 (10:12–10:49), pp. 9–10

Where Section B opened with the shakuhachi on the ascending melodic motif on D and the cello echoing the shakuhachi (measures 17 and 18), in Section F, the cello opens in measure 48 with the ascending melodic motif, starting from D3. The motif is echoed by the shakuhachi in measure 49, from an A4 start, a twelfth higher. The opening registers of the two instruments contrast with the corresponding registers of section B, where the opening phrase of the cello begins a fifth lower than the shakuhachi, while in section F the shakuhachi is a twelfth above the cello. Overall, the gestural patterns of the two instruments are reprised from Section B, in that the cello does not use grace notes between the repeated notes, while the shakuhachi does. Despite the continuity of the gestural patterns, there are other differences, such as the addition of unnotated shakuhachi *muraiki* (G8) to the opening phrase.

The melodic call-and-response shape of measure 50 mirrors the call-and-response motif of measure 19 with an ascending pattern in which the cello takes the lead, rather than the shakuhachi lead of measure 19. The cello opens with an ascent from F to a sustained G, over which the shakuhachi responds with an E♭ and *suri* (G2) to F, emphasized with unnotated *muraiki* (G8). The cello opens with G to A, to which the shakuhachi responds with an F to sustained G, and the cello moves to C–D–B♭–F. The addition of *muraiki* to these gestures subtly expands the gestural rhythm of the phrases in keeping with section E and gives a higher gestural level than that of the corresponding gestural rhythm in section B.

7.5.7.2 Measures 51–52 (11:03–11:18), p. 10

From here, in measures 51 and 52, the cello echoes the melodic shape and D tone centres of shakuhachi measures 20 and 21, again with the instrumental gestural distinctions; the shakuhachi uses grace notes and a *glissando* (G4), the cello does not. However, at the close of measure 21, the shakuhachi ends the sustained C with a *furikiri* (G5), while at the end of measure 52, the cello ends the sustained C with a pair of grace notes, B♭-C. The B♭ return to C mimics the pitch movement of *furikiri* without the *portamento* between the pitches, thus echoing the overall pitch movement of the *furikiri* gesture. It is entirely feasible to enact a *furikiri*

portamento gesture on the cello, so the absence of an indicated slide as part of the grace note gesture is a deliberate choice to echo the shakuhachi gesture without replicating it. From here the gestural trajectory contracts through the low gestural rhythms of phrases 53.

7.5.7.3 Measures 53–54 (11:19–11:31), p. 10

Throughout measures 53, 54, and 55 the cello and shakuhachi mirror the call-and-response phrases on D of measures 22 and 23, and the melodic exchange of measure 24. Like measure 22, measure 53 has a comparatively low gestural rhythm, with the sole use of grace notes (G1) on the shakuhachi and the cello, however the gestural rhythm increases in measure 54 with the addition of a *forte* unnotated *muraiki* from Sakata on the shakuhachi to the grace note (G1) gestures by both instruments. Sakata adds his *muraiki* to the D grace note (G1) and subsequent sustained tone a ninth above the grace note, the large leap adding further impetus to the impact of the gestural rhythm. The shakuhachi closes the measure with a short phrase ending with a *suri* (G2), augmented with *crescendo* into a sustained tone at the start of measure 55, which is a melodic mirror image of measure 24, but again not a gestural mimesis; rather it is a gestural echo.

7.5.7.4 Measure 55–57 (11:32–12:16), p. 10–11

In measure 24, the shakuhachi includes grace notes (G1) and a *glissando* (G4) in the ascending sequence. By contrast in measure 55, the cello does not use grace notes and instead of the *glissando* on the final tone, opens a sustained slide (G2) *forte fortissimo* on the final A to B♭ at the start of measure 56. This sustained slide is a salient gesture which expands the gestural rhythm toward the end of the phrase. The shakuhachi enters at the start of measure 56 with a sustained D, under which the gestural rhythm of the cello expands further with a combined gesture of a double-stop grace note chord (G1, G12).

Furthermore, the top grace note is one of a pair and the tessitura covered by the chordal sequence is more than two octaves. This is a large and loud gesture, giving a high gestural rhythm. The gestural rhythm of this phrase is also mimetic of the gestural rhythm in measure 25, even though the gestures used to achieve this high

intensity vary. From here the cello sustains an A with a grace note (G1) and a passing note into measure 57, the closing measure of Section F. Over an A to *niente* on the cello, the shakuhachi enters with a *piano* C *suri* (G2) to a sustained D with *crescendo* as we move into Section G, the final section of the composition.

Throughout this section there has been considerable gestural tension and relaxation within the individual phrases with gestural echoing such as that of measure 55 when the cello echoes the *furikiri* shakuhachi gesture with a pair of discrete pitches rather than a *portamento*. Another example would be the increasing gestural rhythm through the cello slide in measure 56 instead of the shakuhachi *glissando* used in the corresponding measure in section B. The gestural rhythms have also been expanded and contracted through the emplacement of gestures in high registers with loud dynamics, such as that of the cello in measure 56. Overall these musical choices have acted to retain a relatively high gestural trajectory as we move into the final section.

7.5.8 Section G for shakuhachi and cello: measures 58–67 (12:17–14:16), score pp. 11–12

This section marks the cessation of the work through a series of phrases in which the gestural trajectory gradually contracts with fewer gestures, while the melodic activity diminishes to silence. The shakuhachi is the principal melodic agent in this section, often with a higher gestural rhythm than expected, while the cello provides gestural accompaniment.

Table 7.9 Gestural overview of Marty Regan's *Forest Whispers…* (2008) for shakuhachi and cello.

Section G. Measures: 58-66 Timing: 12:17-14:16. Score: pp. 11-12

Measure:	**58**	**59**	**60**	**61**	**62**
Timing:	12:17-12:24	12:25-12:33	12:34-12:45	12:46-12:57	12:58-13:08
Shakuhachi:	**G1, G3, G6**	**G1, G2, G6, G15**	**G1, G3, G5, G6**	**G6**	**G3, G6, G7**
Cello:	**G11**			**G11**	**G11**

Measure:	**63**	**64**	**65**	**66**	**67**
Timing:	13:09-13:15	13:16-13:34	13:35-13:52	13:53-14:11	14:11-14:16
Shakuhachi:	**G1, G6**	**G1, G2, G4 G8, G18**	**G2, G3, G4, G6**	**G3, G6**	Silence
Cello:		**G2, G11**	**G11**	**G2, G3, G11, G17**	Silence

Key to gestures:	**G5:** *furikiri* (sha)	**G10:** *sawari* (vc)	**G15:** ascending melodic motif
G1: grace notes	**G6:** *vibrato*	**G11:** *pizzicato* (vc)	**G16:** trill
G2: slide	**G7:** *koro* (sha)	**G12:** double-stops (vc)	**G17:** harmonics
G3: *niente*	**G8:** *muraiki* (sha)	**G13:** accent (vc)	**G18:** *ō-meri* (sha)
G4: *glissando* (sha)	**G9:** *sorane* (sha)	**G14:** *tenuto* (vc)	

7.5.8.1 Measures 58–61 (12:17–12:57), p. 11

Section G opens measure 58 with a quiet *pizzicato* chord (G11) on the cello under a shakuhachi grace note (G1). The shakuhachi grace note precedes a sustained D, which concludes with a pair of grace notes (G1) C–D. Effectively, this measure provides a transition between the previous section and section G by re-affirming the tone centre of D, and as the tone centre is reiterated, the gestural rhythm is contracted to a low, quiet level. From here, the shakuhachi takes a short solo in measures 59 and 60, with a reprise of the opening ascending melodic motif (G15) and its gestural rhythm of grace notes (G1), and a *suri* (G2) between the final two notes, B♭ and C. In measure 60, the shakuhachi develops the melody through a short sequence articulated with grace notes (G1), arriving on a series of sustained tones, which are also punctuated with grace notes (G1) and by a *furikiri* (G4). The cello re-enters in measure 61, under the shakuhachi focus on C and D, with single *pizzicato* (G11) tones and a *pizzicato* chord (G11).

7.5.8.2 Measures 62–63 (12:68–13:15), p. 11

This sequence is echoed in measure 62, with the specific performance direction to play "*lontano*, like a distant echo" (Regan 2008:11). Not only do the musicians play more quietly, Hisatake also does not articulate the initial G of measure 62, or if she does, it has been played too quietly to be clearly audible on the recording. Perhaps she was adapting the performance; it is impossible to know. The cello gesture of *pizzicato* tones has a low gestural rhythm, which contrasts with the driving gestural rhythm of the shakuhachi. In measure 62 the shakuhachi voice adds a *suri* (G2) and Sakata adds an unnotated *muraiki* (G8) to the first C to D. *Koro* (G7) is added to the next C–D iteration in measure 63, which leads into a sustained D, and increases the gestural rhythm.

7.5.8.3 Measures 64–67 (13:16–14:16) p. 12

In measure 64, the shakuhachi increases the gestural rhythm further with several *glissandi* (G5) amid melodic movement and over the cello *pizzicato* (G11) and a slide (G2) between B♭ and C. The shakuhachi initiates a rising scalar sequence, with grace notes (G1) on the repeated notes and an *ō-meri* (G18), up to a D–E *suri* (G2) with increasing *muraiki* (G8). The melodic movement and gestural rhythm of

the shakuhachi continues in measure 65 with grace notes (G1), a *glissando* (G4) and *suri* between the final A and B♭, over cello *pizzicato* (G8), into measure 66, the final measure.

The gestural rhythms are higher than might be expected at this juncture, although the choice and emplacement of the gestures create a lower gestural trajectory than might be apparent from the gestural overview. Gestures are applied to a limited selection of tones on both instruments, and the choice of gestures and their dynamic expression reduces the activity, with slow or brief small slides (G2) on *pianissimo* tones; the "art of making a single note interesting". Measure 66 opens with a *suri* (G2) on the shakuhachi from C to a D which is sustained throughout much of the bar. Underneath, the cello has short sequences of a slide (G2) from G to A, then harmonics on the open strings (G13), which carry a distinct bell-like timbre. The shakuhachi and cello *diminuendo* their tones to *niente*, and the shakuhachi has the last word with a short, "barely audible" (Regan 2008:12) grace note (G1) punctuation of C–D, before the silence of measure 67.

Throughout this work we have seen the use of imitative gestures, in concert with melodic development, to create gestural rhythms and trajectories within the sections and an overarching framework to the composition. In the opening section and section A we see the introduction of a shared gestural and melodic space, followed by gestural and melodic development in sections B, C, and D. The peak of the overall gestural trajectory comes with the melodic development of the shakuhachi solo in section E, from which we return to the familiar gestural and melodic territory of section F, and thence to the concluding gestures and melodic sequences of section G.

7.6 Conclusion

Regan's experience of composing for Japanese instruments and his background in western art music have enabled him to create a cross-cultural work in which he takes us on a journey through a common space of timbral, microtonal, and melodic gestures between two instruments from different musical traditions. His shared

melodic and gestural space between the musical tradition of the Japanese shakuhachi and the western cello enables the tone-colours, microtones and *portamenti* possibilities of both instruments to meet through gestural mimesis, echoic or otherwise, through layers of melodic imitation at the phrasal level and through entire sections. The work is ametric, with a meter based on human breath, which is reminiscent of the unmetered form of traditional shakuhachi *honkyoku*, and is also non-tonal, with melodic development that references both western and Japanese conventions.

Regan uses many conventional shakuhachi gestures, including *muraiki*, *furikiri,* and *suri*. Some of these are directly mimicked or echoed on the cello, such as *suri*, which is a straightforward *portamento* on the cello, or *muraiki*, with the cello injunction to increase in intensity (Regan 2008:10). The cellist, Hisatake, interprets this as a cello *sawari*, the buzzing timbre prized on the biwa and shamisen. Other shakuhachi gestures such as *furikiri* Regan reserves for the shakuhachi as a distinguishing articulation of the shakuhachi voice. While grace notes are primarily reserved for the shakuhachi, Regan makes occasional use of these in the cello voice, adding gestural emphasis by so doing. The performers are given considerable freedom in their interpretation, which is most obviously seen in Sakata's frequent addition of unnotated *muraiki* to the performance, but is also present in Hisatake's melodic alteration in measure 62, p.11 and in her interpretation of cello *sawari*.

The interpretative freedom accorded the performers also extends to the use of *vibrato*. In the other works presented in this study, *vibrato* has a clear gestural role as a "bound expressive unit" (Ben-Tal 2012:251), noticeable by its presence or absence. Likewise, when I began work on the gestures in this composition I listed *vibrato* as a gesture, however as I worked through the composition, it became clear that the use of *vibrato* was ubiquitous by both performers throughout the work. As such *vibrato* lost foregrounded significance (Hatten 2006:8) as a distinct bound gestural unit (Ben-Tal 2012:251) shaping the gestural rhythm or trajectory, and became 'backgrounded'. In a similar manner, the cello gestures of *tenuto* and accent were not, to paraphrase Hatten, sufficiently foregrounded to contribute to

significant shaping of the music. Therefore, not all gestures initially identified will necessarily be significant shapers of the music.
Using the gestural model to discuss this composition was challenging, as the gestures intertwined with the melodic exchange rather than being a prominent part of the musical form in their own right. As a result, extracting the gestural rhythms and trajectories proved more demanding than I had expected. Nevertheless, persistence paid off with the realisation that while there is an overall gestural trajectory akin to McAdams' et al. model (2004:157), the emphasis is on the gestural rhythms (Tsang 2002:35–36) of phrases and the gestural trajectory of a section, rather than the overall trajectory.

Furthermore, the discovery of Cox's model of gestural mimesis (2006:50–55) and Nettl's musical descriptors (2005:110) greatly aided the means by which the musical interaction of the gestures could be considered within an analytical framework. The model has also enabled me to identify gestures which were potential shapers of the music. From the analysis we can see that most of these gestures were indeed musically significant, while a few (*vibrato*, *tenuto* and accents)[252] were not; and in this regard, the gestural model has provided a useful testing framework of musical significance.

By this analysis, I have hopefully been able to illustrate the musical means by which timbral and microtonal gestures play a prominent role in Regan's cross-cultural work for shakuhachi and cello as imitative gestures, and create a successful mutual musical space. Furthermore, by means of this analysis, I have been able to introduce Regan's inventive approach to creating new cross-cultural repertoire for the shakuhachi.

[252] The print quality of the score was indistinct, rendering some articulation marks unclear. I have clarified these as far as possible; any remaining errors are my own.

8 Conclusion

8.1 The context, the questions, and the approaches

This Ph.D. began as a journey to explore the underreported world of contemporary shakuhachi cross-cultural composition: to discover who was composing for the instrument, what had attracted them to it, and how they were using the shakuhachi in this emerging cross-cultural milieu. Through my researches I have discovered an international cohort of recent and contemporary composers using the instrument in myriad inventive ways. Furthermore, many of these composers were (and are) attracted to the wide timbral compass of the instrument and the corresponding array of timbral techniques, despite the distance of such approaches from many western art music conventions (Cronin 1994:77, Denyer 1994:48, Takemitsu 1995:51–67, Samuelson 1994:83–86, Regan 2006:7). This in turn begat the questions: how were individual composers using this timbre, in an apparently distant musical framework, and how could this timbral use be elucidated in a musical–analytic paradigm, given the well-known difficulties in analysing timbre?

Addressing these questions engendered a multidisciplinary approach, outlined in Chapter 1. This approach comprised a review and survey of the compositional cohort, an assessment of the timbral context of the instrument, and musical analysis of the role of shakuhachi timbre in selected compositions, using a new gestural–musical analytic model that I have developed. Firstly, the shakuhachi and western art music context has been reviewed and the recent cohort of composers assessed using available sources, while new research on the contemporary cohort was added (Chapter 2). A new database was developed to consolidate the compositional sources and extract a more detailed survey of the internationalism and instrumentation of this cohort (Chapter 3). This was followed by an evaluation of musico-cultural context of shakuhachi timbre and the instrument's timbral techniques (Chapter 4).

From here we moved into musical analyses of how these privileged timbral techniques have been incorporated into three contemporary cross-cultural works

(Chapters 5–7), comprising one improvisation (Chapter 5) and two compositions generously given to me by the composers Frank Denyer (Chapter 6) and Marty Regan (Chapter 7). The analyses of all three works were undertaken using the new analytic model I proposed in Chapter 1 in which gestural and musicological approaches are combined, while the improvisation of Chapter 5 required the application of an additional ethmomusicological tool; transcription.

8.2 Surveying the cohort

My initial research question of how the shakuhachi and its timbre could be combined with western instruments needed to be put aside until I had first investigated who these composers were, how they came to be using the shakuhachi, and indeed how the shakuhachi came to be considered within this cross-cultural context. As we saw in Chapter 2, there has been a considerable amount of non-Japanese research documenting the transformation of the shakuhachi and its repertoire from the late nineteenth century onward. Much of this research has concentrated upon the evolution of respective traditional styles rather than the use of the instrument in a cross-cultural context, even where these traditional styles have engaged in such activity.

Moreover, until comparatively recently (Herd 1987, 1989, 2008; Galliano 2002), there had been little non-Japanese attention[253] given to the evolution of composers, other than Takemitsu, writing western–style music in Japan, particularly with reference to the use of traditional Japanese instruments such as the shakuhachi within that medium. Such attention as has been given to the use of the shakuhachi in this arena in non-Japanese sources has centred around compiling lists of composers, compositions and instrumentation, and on practical advice when writing for the instrument rather than the emerging shakuhachi cross-cultural oeuvre per se (Benitez and Matsushita 1994, Samuelson 1994, Iwamoto 1994, Miki 2008, Lependorf 1989, Cronin 1994).

[253] Whilst I would have liked to access the Japanese language works on these topics, my Japanese is currently insufficient to be able to do so.

A notable exception has been Day's (2009) study of the *jinashi* (unlined) shakuhachi, although her practice–led study focused on this less common instrument rather than a wider survey of the shakuhachi in contemporary composition. Such a focus is in line with common parameters for much ethnographic and practice–led music research, and while such studies have brought considerable insights and understanding of distinct cultural practices, they often do so at the expense of a broader context – a balance that I have attempted to redress in this study. Although I had initially planned to concentrate on Japanese composers, as I was unable to procure the necessary resources I broadened my scope to any contemporary international shakuhachi composers who engage in cross-cultural composition. This led to a large international cohort from which my perspective developed.

Consolidating these sources on recent and contemporary composers brought forth opportunities and questions, given the fragmentary presentation of much of the material in texts, articles, and websites. Firstly, how could the information be codified? I conceived of a database in Microsoft Excel 2008, in which the available composition information was systematically displayed. Initially this began as a repository, although as the database grew, possibilities for basic statistical research from the database itself became apparent.

Although the articles of composer compilations listed a large international cohort, they indicated only the barest details about each composer and their works, but did include the instrumentation of compositions. Could this instrumentation information be employed for analysis? How frequently were some of these instruments used and what, if anything, could this tell us about potential timbral application in a cross-cultural work? Could the range of internationalism among the composers be evaluated?

Surveys using databases proffered potential solutions to these questions, although such an approach is not without its own disadvantages and limitations, primarily that individual practice can be misrepresented through generalisation of musical features (Nettheim 1997:94–106, Nettl 2005:92–99). By and large, such surveys

were concerned with the material of music itself, its notes, rhythms and performance practices, rather than lists of composers' nationalities, works and instrumentation. Moreover, these lists were the only sources I could access for many of the compositions.

My primary aims focused on the available information: composers' nationalities and the instrumentation used in compositions. Initially the delineation of nationalities was straightforward, although the question became more problematic in our contemporary global world (Chapter 3, §3.1.3), with composers having dual nationality for example, and residing in a country other than that of their birth. This could be negotiated through representation of both nationalities and additional material as necessary, although the need to navigate such issues is in itself testament to the internationalisation of shakuhachi composition. This internationalisation also induced consideration as to whether general instrumentation choices in composition were reflected in the regional/national identities of the composers. For example, were more non-Japanese composers, pro rata, using the shakuhachi in ensembles with western instruments than Japanese composers?

In order to address this and other questions, I developed a classification system representing the generic national/cultural affiliations of instrumentation to which compositions were then assigned. Assignation of works to these categories was not always straightforward: some works could be assigned to several categories or were listed in several sources, thus requiring a decision as to which category or source would be the most appropriate. Furthermore, boundaries between *yōgaku* (western-style music), *shin-hōgaku* (new traditional music), and *gendai hōgaku* (contemporary traditional music) are ambiguous; the path navigated depends upon individual perspectives and purposes. Nonetheless, even where such works are more clearly *shin-hōgaku* or *gendai hōgaku*, their inclusion serves to illustrate the wider context in which the shakuhachi has been used as a compositional tool in recent decades and acts as a point of comparison against the use of western instruments.

Responding to the dangers of inferring musical style from database generalisations (Nettheim 1997:94–106, Nettl 2005:92–99), I would argue that such was never my intent. These categories were intended as a means of accessing and organising the available information, in addition to textual analysis, so as to give an insight into the types of instrument employed by composers from different parts of the world. The findings from the categories have enabled a fuller understanding of the international cohort of composers as well as posing questions for future research.

The second survey focused on individual instrumentation used with the shakuhachi in these cross-cultural compositions and my first task was to separate all the instrumentation information into individual categories, easily the most time–consuming task of the entire database endeavour. Each type of instrument was assigned its own category and a '1' entered into that category if the type of instrument was included in the composition information, whether as an ensemble member, principal or alternative.

As with the first survey, musical and indeed extramusical questions arose, primarily over the ordering of the instruments: how could I order these instruments so as to illustrate both the regional/national affiliation of the instrument and its organology/method of play, which is important in determining timbre. I considered western orchestral groupings and the well–known Sachs and Hornbostal (1961[1914]) taxonomy and developed a four-tier system which incorporated elements from these systems as well as the regional/national affiliations, and could be extended to include other performance media.

Once this system was in place, I intended to sum the use of each instrument with the shakuhachi for a basic comparison and attach the MS Excel filter tool to the instrument columns for more sophisticated analyses by which the use of an instrument with the shakuhachi could be contextualised within its performance criteria: was it in a duo with the shakuhachi or part of a larger ensemble? If it was part of an ensemble, what were the other instruments?

Findings bore out my expectations of western orchestral string instruments, especially the cello, and the flute being common choices for combination with the shakuhachi for their potential timbral, microtonal and tuning compatibility. Unexpected findings, particularly the high use of the piano, were also indicated and perhaps owe more to the functional use of the instrument. This filter enabled me to refine the basic results, highlighting the instrumentation formats in which these instruments were used: the more common use of the flute in a duo with the shakuhachi than the cello, for example. Perhaps reflecting these findings, the flute and cello are respectively used in the two compositions explored in Chapters 6 and 7.

In this instrumentation survey, I had hoped to make more use of Grey's (1977:1270–1277) study of timbral similarity and dissimilarity; in the event this angle proved less relevant. To extrapolate Grey's findings for the flute as applicable to the shakuhachi was viable, but to graft these results onto all the common instruments discussed, Japanese and western, was questionable – this approach would have been feasible if the discussion had focused solely on western orchestral instruments, which may be possible in a future study.

This database has proven an effective repository by which a large compositional cohort can be systematically represented and searched and is, therefore, useful to those wishing to research the corpus. It has also proven to be a source of analysis per se, in comparing instrumentation, which was the only substantial information available for majority of these compositions. Of this substantial sample I have only been able to make use of a tiny proportion of the potential findings for the purposes of this study – this database could generate a study by itself and perhaps could do so in the future.

Although my focus was on the use of western instruments, the databases have also given an insight into the use of other Japanese instruments with the shakuhachi, with or without cross-cultural instruments, and have indicated cross-cultural exploration of other music traditions. Whilst the databases have the potential to be extended and to be used for further study, caveats about generalisation remain

applicable and should always be acknowledged; the impact of such generalisations may also be lessened through inclusion in a wider study which has been the case here. These surveys of shakuhachi composition sources have painted a broad picture of shakuhachi cross-cultural composition on the international scene over the past few decades, enabling us to know who and where the composers were (and are) and their instrumental choices. Although instrumentation preferences did imply a relationship with composer locale, this angle would be better explored as a question for further research.

As outlined in Chapter 1, these composers have often been attracted to the shakuhachi because of its timbral possibilities, meriting consideration of how shakuhachi timbre evolved and is valued within its context. In Chapter 4 we have learned that timbre is a valued concept and core structural element in many East Asian genres, and furthermore, that rough and raspy timbres are prized in both Japanese and Korean genres. Whilst these rough and raspy preferences may go by different names (*sabi*, *tsuchikusai*, *sawari*, *muraiki*) and have evolved differently among Japanese musical traditions they all exhibit common acoustic features.

Alongside muraiki, we have also learned that the shakuhachi has many other timbral techniques which have often evolved in concert with other musical features, and are a product of the instrument's cultural environment and history (Weisgarber 1968:313–344; Takemitsu 1994:3–4, 1995:51–67; Blasdel 2002:214–217, 1988:69–130). The cross-cultural transfer of these techniques, whilst attractive, involves navigating a shift of musical and conceptual priorities on the part of the composer (Denyer 1994:45–47). Nevertheless, such negotiations have resulted in successful cross-cultural projects and compositions, as seen in the works discussed in Chapters 5–7.

8.3 Analysis of contemporary works

8.3.1 Gestural analysis of timbre

In these analyses I considered the central questions which prompted this research: how has shakuhachi timbre been used in cross-cultural composition and how can we illustrate this cross-cultural engagement in musical discourse in such a way that the instrument's privileged and attractive timbre is not lost (Chapter 1, §1.2, 1.4.7). Gestural analysis posed a potential solution by which timbre could be defined as a musical unit (Ben-Tal 2012:251) and its foregrounded musical significance (Hatten 2006:1, 8) articulated through frameworks of timbral rhythm (Tsang 2002:35–36) and trajectory (McAdams et al. 2004:157).

Repositioning Tsang's and McAdams' et al. models as gestural rhythm and trajectory respectively allowed a greater range of non-western timbral techniques to be framed in the musicological analysis, given that many of these timbral techniques are not often easily separable from pitch, microtonal movement, and volume (Chapter 4, §4.4). This model then enabled musical discussion of the compositional development in a work of shakuhachi timbral gestures in cross-cultural idioms. Furthermore, it allowed each individual composition to be framed in its own terms, with discussion of gestures specific to that composition, while providing an analytic parity for the three works.

8.3.2 *O Gloriosa Domina* (Savall 2011).

The first work discussed (Chapter 5) is an improvisation on the Jesuit plainchant *O Gloriosa Domina* and is performed on the shakuhachi and biwa. Although it is not an interaction between western instruments and the shakuhachi, as it was based on a western plainchant as part of a wider cross-cultural project, its inclusion broadly fits the parameters of the study and highlights the varied platforms of cross-cultural musical engagement.

Its inclusion raised the question of transcription, a tool long used in ethnomusicology (Ellingson 1994, Nettl 2005:74–91). Transcription into staff notation can be problematic in representing musical information (such as timbre)

privileged in a different musical culture but not in the system into which it is being transcribed, primarily western art music staff notation. Allowing for this shift of musical paradigms (Chapter 4, §4.4), I was able to use well-established conventions (Lependorf 1989, Cronin 1994, Takemitsu 1967, Miki 2008, Ueda[254]) to represent the shakuhachi and biwa timbral and microtonal gestures which lie outside the purview of staff notation.

While transcription was the initial medium for representing the improvisation, the process was not separable from the subsequent gestural analysis; the first question of both was how these features outside the purview of western music conventions could be rendered explicable? For the transcription, the consideration is visual–symbolic, for the analysis it is discursive, and in both cases determination of the boundaries of the musical attribute (the gesture) was needed, here afforded by Ben-Tal's (2012:251) and Hatten's (2006:1, 8) respective definitions. In addition, Ellingson's (1992:141–142) framework of conceptual transcription, in which a particular musical problem is targeted in the transcription by an individual already familiar with the tradition proved particularly useful as a means of defining my own position to the exercise.

Staff notation, with dynamics and additional symbolic representation drawn from the established conventions referenced above, provided an effective means to notate the work, from which the gestural analysis could then be drawn. The resulting model proved an efficient discursive framework, particularly for the biwa. As the biwa has traditionally been an accompanying instrument enhancing sung narrative through a variety of timbral and melodic techniques, its contribution is primarily gestural and was well-suited to this framework; this model could be further used in biwa research.

Using gestural models also enabled the exploration and discussion of the musical role played by the timbral and microtonal techniques employed by the shakuhachi and in exchanges between the two instruments in this unmetered cross-cultural

[254] http://www.junkoueda.com (19 Jul. 2015).

improvisation. The two performers developed the improvisation through a series of phrasal exchanges, beginning and ending with the shakuhachi, with the role of the shakuhachi primarily gestural and melodic while the biwa mimicked, expanded, or contracted the gestural rhythm of the shakuhachi.

Therefore, the exchange between the two instruments was predominantly gestural and exhibited considerable timbral and microtonal divergence from the original context of the chant, whilst simultaneously retaining its integrity. The gestural exchange between two musicians in an improvisation could also be studied in a live context, which could be interesting for this improvisation as these two instruments are not traditionally combined; however, such was not the focus of this study, nor would it have been feasible as live performance was not an option and I am not aware of a DVD.

8.3.3 *The Tender Sadness of Tyrants as they Dance* (Denyer 1991)

Denyer has long been concerned with musical parameters outside the purview of western art music and has a close interest in timbres and microtonalities. He also has a long association with the shakuhachi, whose timbres and microtonalities he has explored in a number of compositions. Despite this association, he has been at pains to not be "seduced" (Denyer 1994:47–48) by the historical conventions of shakuhachi repertoire. Thus his inventive and radical compositions have taken the shakuhachi, and other instruments, well outside their usual context, and *The Tender Sadness of Tyrants as they Dance* (1991) for shakuhachi and bass flute is no exception.

Denyer creates a common musical space for both instruments in this work, but unlike Regan and the improvisation performers, does so through removal of the instruments from their conventional contexts. This composition was initially the most daunting to access. Once I began thinking in terms of categories of timbre and dynamics, and particularly after I framed those categories in gestural analysis, the work fell into place; timbre and dynamics are both the structure and expression of this work. Whilst opining this structural perspective, I had simultaneously worried about how to discuss the gestural trajectory of the work relative to the structure

until I framed the gestural trajectory as the structure of the work. In Denyer's composition, this gestural approach has enabled a composition more distant from the musical conventions of both Japanese and western art traditions to be framed in analytic discourse. By so doing, the gestural model gave a voice to musical priorities outside much of the western musical paradigm.

Whilst gestural analysis worked well overall with Denyer's composition, there were practical difficulties, particularly with local gestural priorities. Part of my analytical model aimed to show an overall trajectory in the use of gestures. In order to extract the gestural trajectory of a work, I considered the gestural rhythm of a phrase, which worked well in Jordi Savall's improvisation and in Regan's composition. By contrast in this work there were no sections or bars marked. Therefore, establishing sections was reliant upon musical cues from the recording and the score, and these were not always straightforward, rendering the establishment of phrasal breaks more difficult. In this context, the accompanying text analysis provided a medium for such clarification.

As with the other two works in this study, the focus is on timbral and microtonal gestures derived from the recording and score rather than live performance. An analysis of gesture based on live performance would have presented an interesting perspective as some of the gestures Denyer uses, such as foot percussion, are variously played by the two performers. Whilst the specific performer can be gleaned from the score, it cannot be deduced from a recording, and even if a score informs us which performer is tapping, the score does not convey the live interaction of that effect. This is a gesture better addressed in a live performance analysis.

8.3.4 *Forest Whispers...* (Regan 2008)

Of the composers with whom I had closer contact, Marty Regan has the most knowledge and experience of traditional Japanese music and musical instruments with his immersion in composition for this medium. In his compositions he aims to create a musical space neither Japanese nor western but somewhere in–between, seeking a compositional *ma*, the space between the sounds. *Forest*

Whispers…(2008) for shakuhachi and cello is one such composition in which Regan aimed to create a common space for the music through imitative timbral, microtonal, and melodic gestures. His choice of cello resonates with the database findings of Chapter 4 of the cello as one the commonest instruments to be used with the shakuhachi, as did Denyer's choice of the flute, albeit with the unconventional bass flute.

Although Regan's work was superficially accessible, it proved the most challenging to frame in gestural analysis, partly because it is the longest work with the most instrumental interaction, and also because the gestures are set against a more conventional melodic framework, the tools and language for which threatened to subjugate the gestural approach. This might seem paradoxical, as Regan himself aimed to frame the work in a shared space that belonged to neither tradition with use of imitative gestures. Nevertheless, he creates this space from elements common to each tradition and therefore familiar – and carrying the weight of history and tradition (Denyer 1994:47–48). Throughout the work, these gestures are additions to the melodic vehicle which is carried by the shakuhachi and echoed by the cello. Even though the gestures in the *O Gloriosa Domina* chant improvisation were likewise additions to a melodic vehicle, the melodic compass was restricted and centred around one instrument with the gestures used by both correspondingly more prominent and therefore easier to measure.

Furthermore, whereas the gestural trajectory was framed as the structure in Denyer's composition, Regan has a less overt overall gestural trajectory. Rather, each section has its own gestural and melodic trajectory, but these sections are predominantly connected with melodic development rather than gesture. Nonetheless, the gestural development of each section was explicable and an overall trajectory elicited, even if its role was less prominent. As such this analysis highlighted the more prominent role of the gestural trajectory in the musical development of a section rather than the overall gestural trajectory of the composition; the analysis did not only highlight gestural development, but also the varied ways in which gesture can be framed within the structure of a composition.

Regan also presented a contrast to Denyer in the amount of performance practice control ceded to the performers, such as in the demarcation of microtones, which for Denyer is very precise. Regan, meanwhile, is aware of the individual competencies of performers and idiosyncrasies of their instruments, and credits them with interpretative integrity of such intervals. Both stances have advantages and disadvantages, which are contingent upon the context and people involved.

These three disparate works shine a small light into the diverse musical world of contemporary shakuhachi composition, with three very different approaches to exploring cross-cultural musical contexts, and shakuhachi timbres within that environment. Using gestural analysis has proven insightful within this medium in enabling discussion of an integral musical feature often neglected as superficial or uninteresting, but of paramount importance in the world of shakuhachi music. The analyses were not always straightforward, nor should they be, but they have generated insights, opportunities, and further questions in this contemporary compositional medium. These analyses also wove together strands hitherto separate in gestural analysis: timbre and cross-cultural approaches. It had seemed that these two areas were unlikely to meet in research, yet in the context of this study, timbre *is* the cross-cultural medium.

8.4 Future research

At all stages of this study, opportunities and questions have arisen that I was unable to explore. Chapter 2 describes the evolution of the shakuhachi as a cross-cultural instrument in Japan, then outward to an international scene. Whilst this is the dominant narrative, subsidiary paths emerged to which I was unable to do justice, such as the role of the shakuhachi in the exportation of Japanese traditional musics to the U.S. during the early part of the twentieth century as part of a Japanese migration at that time.

It was in this context that the composer Henry Cowell (1897–1965) first encountered the Japanese musical traditions which were to prove so formative in his musical world; indeed he went on to study the shakuhachi. Neither could I do justice to Henry Cowell himself, a student of and composer for the shakuhachi,

partly due to the parameters of my own study, but also due to a paucity of such sources on Henry Cowell, not least because his late widow retained very tight control on his estate. With the release of his papers to the New York Public Library and Joel Sach's (2012) authorised biography of Cowell, further study building on the research of Miller (2006) and Sheppard (2008) into Cowell's relationship with Japanese music and the shakuhachi is a possibility.

Constructing the database brought forth a range of opportunities many of which I have only touched upon. The summing and filtering that I did on the commonest instruments could be extended to all the instruments in a comprehensive survey, and findings could be used to shed light on other genres in relation to the shakuhachi, such as a focus on *shin-hōgaku*, or the database extended to include more jazz, film and pop for example. Such questions might consider why more Japanese instruments have been used in ensembles in the U.S. rather than Europe, or why electronic media were only widely used in Europe. In addition, the approach to the database itself could potentially be extrapolated to other musical genres entirely, in our global environment where people cannot visit all areas all of the time.

The gestural approach to an analysis of shakuhachi timbre has provided a platform in musical discourse for timbre which has the potential to be used with other Japanese musics, such as the biwa, or to be exported to other musical traditions entirely. Although I have used it with a score and recording in this study, a score is not a requisite; this approach could be used with a recording alone. Whilst McAdams et al. (2002:157–196) propose a method of analysing a timbral trajectory their method is contingent upon acoustics and does not leave much space for the musical purpose of the sound signals. Despite this, their concept of the timbral trajectory is very valuable and the gestural–musical model I have proposed could give a voice to such musical features and frameworks in many cross-cultural contexts.

There were compositions by other composers that I would have liked to explore but was unable to procure, such as Ryōhei Hirose's and Maki Ishii's works, or more

recently, those of Anne Boyd; the sample presented here is only a small selection of the contemporary shakuhachi world. I would also have liked to research the music–publishing world of Japan and China in the 1930s, particularly the publishing house established by Alexander Tcherepnin (Arias 1988), however that is for another day.

8.5 Concluding remarks

From the early offhand comment that there was little cross-cultural shakuhachi composition, I hope that I have been able to shed a small light into the thriving international scene of this milieu, through which we have also glimpsed an active shakuhachi engagement in other genres. We have journeyed through a plethora of instrumental approaches and compositional styles, which I have had the pleasure to experience from the generosity of their creators. With the gestural–analytical model that I have proposed, I hope I have been able to illuminate the inventiveness of the composers and demonstrate how the elusive but integral shakuhachi timbre can be brought to discursive parity in a musical analysis: a gestural world in a single tone.

Appendix 1: glossary of key Japanese musical terms.

Biwa: Four- or five-stringed, and four- or five-frettted lute used in narrative song.

***Chikuzen biwa*:** genre of biwa performance.

Fuke shakuhachi: the standard variety of shakuhachi.

***Furikiri*:** down–up *portamento* during or at the end of a tone. A.k.a *nayashi*.

***Gagaku*:** court music.

***Gaikyoku*:** lit. "outside music" – non-traditional repertoire.

***Gakki*:** musical instrument

***Gendai hōgaku*:** contemporary traditional music.

***Heike biwa*:** genre of biwa performance

***Hitoyogiri*:** early shakuhachi, shorter than the current instrument

***Hōki*:** religious tool

***Honkyoku*:** original music. The core temple repertoire of the shakuhachi

***Hōgaku*:** traditional music.

***Ichion jōbutsu*:** Buddha–hood in a single note.

***Jinashi* shakuhachi:** unlined shakuhachi.

***Jinuri* shakuhachi:** lined (with lacquer) shakuhachi.

***Jiuta*:** song genre associated with the shamisen.

***Jūshichigen*:** seventeen-string bass koto.

***Kari*:** raised head position on a shakuhachi, increasing the angle between the mouth and the instrument.

***Kazaiki* (*kazaiki*):** strong *muraiki* (breathy sound).

***Kokyū*:** upright bowed fiddle.

***Koten honkyoku*:** archetypal/old/classical *honkyoku*.

***Komusō*:** priests of nothingness – Buddhist priests associated with the shakuhachi.

Koto: plucked zither. Traditionally has thirteen strings, however contemporary models may use twenty, twenty-one, thirty, or other numbers of strings.

***Kyoku*:** piece of music, melody.

***Ma*:** between – the space between the sounds.

***Madake*:** the traditional variety of bamboo used for making shakuhachi.

***Meri*:** lowered head position on the shakuhachi, reducing the angle between the mouth and the instrument. Often used for *portamenti*.

***Min'yō*:** folk music.

***Muraiki*:** rough, breathy shakuhachi technique.

***Nō*:** Classical theatre genre.

***Nōkan*:** transverse flute used in *nō theatre.*

***Nayashi*:** down–up *portamento* during or at the end of a tone. A.k.a *furikiri.*

***Ongaku*:** music.

***Ryū*:** school or style of performance.

***Sabi*:** vocal aesthetic of a rough voice.

***Sankyoku*:** chamber music trio, using shakuhachi, koto, and shamisen. The *kokyū* was used, but was superseded by the shakuhachi.

***Satsuma biwa*:** genre of biwa performance.

***Sawari*:** raspy effect on the biwa/shamisen.

***Shaku*:** traditional unit of measurement used for shakuhachi.

Shakuhachi: end–blown bamboo flute.

Shamisen/*sangen*: three-stringed plucked lute, used in *sankyoku*, *min'yō*, and theatre music.

***Shin-hōgaku*:** new traditional music

***Shinobue*:** transverse bamboo flute used in *kabuki* theatre music.

***Shōga*:** mnemonics used in some instrumental traditions.

***Sōkyoku*:** koto music.

***Sorane*:** light *muraiki* (breathy sound).

***Suizen*:** blowing Zen.

***Suri*:** slide in shakuhachi music

***Sun*:** subdivision of the *shaku* unit of measurement.

***Tempuku*:** early short shakuhachi associated with the former Satsuma domain on Kyūshū.

***Tsuchikusai*:** earthy, rough voice associated with *min'yō*.

***Urushi*:** lacquer used to line a shakuhachi (see *jinuri* shakuhachi).

***Wabi-sabi*:** aesthetic associated with ceramics, idealising qualities of impermanence and rough textures.

***Yōgaku*:** western-style music in Japan

***Yuri*:** shake – generic term for the many types of shakuhachi vibrato

Appendix 2: Total frequencies of instruments combined with the shakuhachi.

No.	Instrument	Tot. Freq.	No.	Instrument	Tot. Freq.	No.	Instrument	Tot. Freq.
1	Shakuhachi	667	35	Kotsuzumi / Tsuzumi	7	69	Lute / Vihuela	2
2	Unk. Koto type	129	36	Recorder	7	70	Viola da Gamba	2
3	Mixed Percussion	98	37	Harpsichord / Clavichord	7	71	Vibraphone	2
4	Shakuhachi Ensemble	90	38	Marimba	7	72	Santur	2
5	17-string Bass Koto	89	39	Nōkan	6	73	Tenor / Counter-Tenor	2
6	Shakuhachi	64	40	Ryūteki	6	74	Baritone	2
7	21-string koto	50	41	Japanese Instruments	6	75	Bass	2
8	Shamisen / sangen	47	42	Pipa	6	76	Film/Video/ Multimedia	2
9	Koto ensemble	45	43	Bassoon / Dulcien	6	77	Actors	2
10	Piano	43	44	Dance / Mime / Movement	6	78	Piccolo	1
11	Biwa	42	45	Hichiriki	5	79	15-string Koto	1
12	Orchestra	38	46	Renaissance Brass Ensemble	5	80	Ichigenkin (1 string koto)	1
13	Cello	36	47	*Mṛdangam / Tablas / Manjira*	5	81	Wadaiko (a.k.a. Taiko)	1
14	Flute	35	48	Chinese Orchestra	4	82	Rei (rattle bells)	1
15	Shinobue	34	49	Korean Orchestra	4	83	Naruko (wood clappers)	1
16	Tape / computer / electronics	34	50	Oboe / Chirimía	4	84	Gyōban (Zen fish woodblock)	1
17	Violin	28	51	Morin-khuur	3	85	Xiao	1
18	Harp	25	52	Saxophone	3	86	Ocarinas	1
19	20-string Koto	21	53	Woodwind Choir	3	87	Guzheng	1
20	13-string Koto	19	54	Gamelan	3	88	Yangqin	1
21	Voice / Singer	18	55	Children's Choir	3	89	Komungo	1
22	Mixed Choir	18	56	*Fue*	2	90	Spike Fiddle	1
23	Futozao Shamisen	14	57	*Horagai* (conch trumpet)	2	91	Alto Flute	1
24	Shō	13	58	30-string Koto	2	92	Bass Recorder	1
25	Guitar / Electric Guitar	13	59	Chūzao Shamisen	2	93	Renaissance Ensemble	1
26	String Orchestra	12	60	Ōtsuzumi (a.k.a. Ōkawa)	2	94	Chamber Orchestra	1
27	Soprano / Mezzo-Soprano	11	61	Ōdaiko	2	95	Sarod	1
28	Hosozao Shamisen	10	62	Bawu	2	96	Tambura	1
29	Kokyū	10	63	Sanxian / Da-sanxian	2	97	Ney	1
30	String Quartet	10	64	Erhu	2	98	Ondes Martenot	1
31	Japanese Percussion	9	65	Changgo (janggo)	2	99	Narrator	1
32	Viola	9	66	Bass Flute	2	100	Glass	1
33	Synthesizer / Keyboards	9	67	Organ	2	101	Environmental Objects	1
34	Double Bass	8	68	Bass Clarinet	2			

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